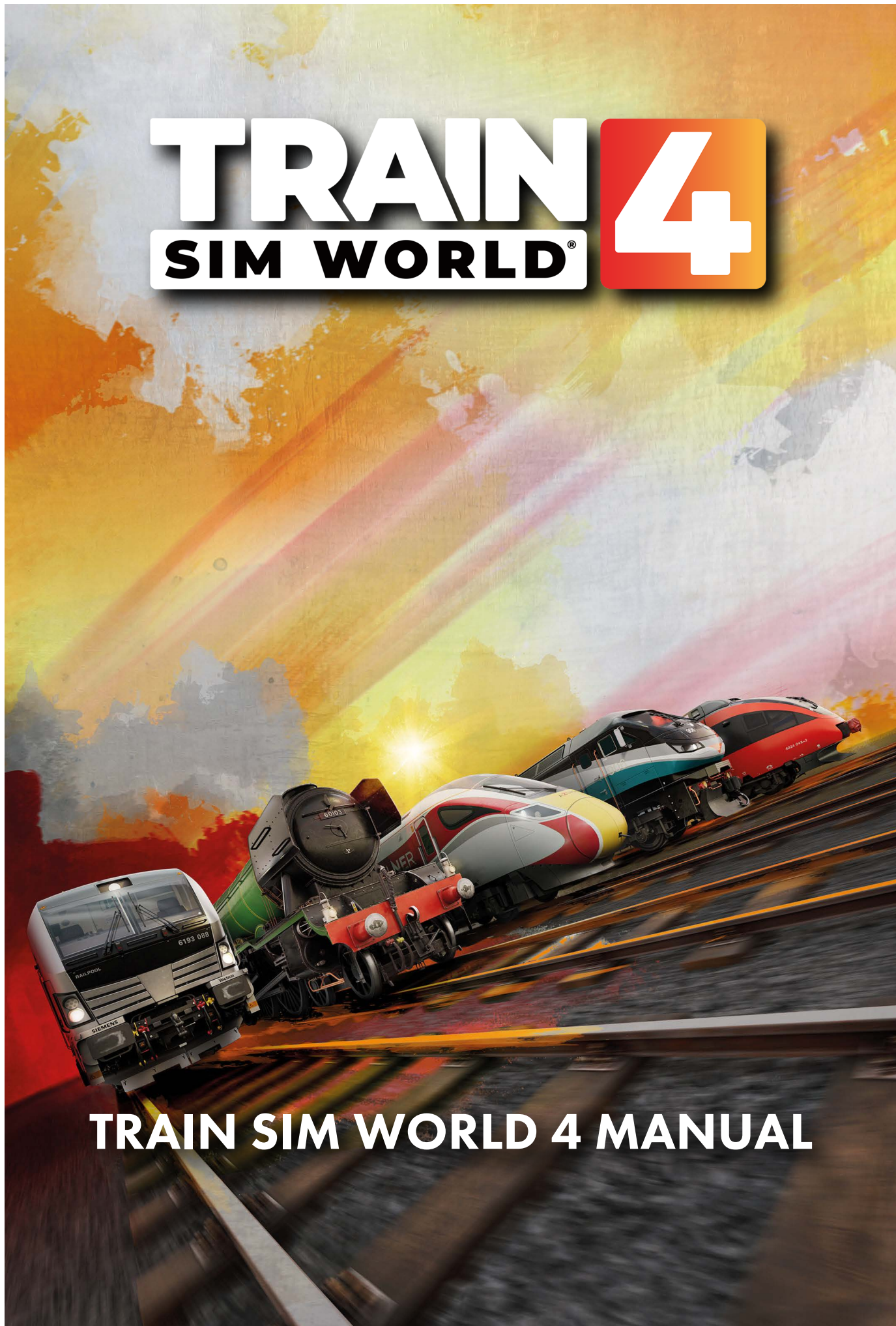


TRAIN SIM WORLD 4



TRAIN SIM WORLD 4 MANUAL



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Developed and published by DTG.

The full credit list can be accessed from the TSW "Options" menu.

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TRAIN SIM WORLD 4 INTRODUCTION



Welcome to Train Sim World 4, a highly immersive rail simulation, featuring authentic routes and trains from around the world. In this manual, we will be covering the basics of how to navigate the sim and its features, the fundamentals of how to get moving any locomotive or multiple unit, and be going deeper in-depth with cab layouts and procedures for every train included in the Deluxe Edition. There is also information on the included routes with background info, route maps and gameplay.

This manual will not cover the specifics behind signalling & safety systems, nor keyboard/gamepad controls, please refer to the in-game training & menus for this information.

Train Sim World 4 is all about your hobby, your adventure, your way – we have taken the foundations of our Train Sim World 3 feature set & interface and expanded upon it, giving you even more ways to enjoy your new and existing collection. We will also be providing detailed info on how aspects of the menu and features function, and how to access certain gameplay.

Look out for other improvements* such as volumetric fog, rendering tweaks to OHLE equipment, windscreen rain effects and overall lighting and balancing tweaks. For controller players, enjoy new haptic feedback, giving you a real-time sensation of movement.

Our UI from Train Sim World 3 has been refined for an easier navigation experience. Multiple areas have been brought up to standard and made clearer to understand. You will also find new HUD options to cater for different styles of play, and ease-of-access options so anyone can enjoy trains!

And of course, enjoy our lovely new menu music!

**Please note that throughout the manual, imagery and reference is based on the PC/Gen 9 console experience, certain features such as volumetric fog are not available on Gen 8 platforms.*

HOW TO PLAY TRAIN SIM WORLD 4



You can find more detailed information on all these features in subsequent pages throughout this guide.

NEW – Free Roam

Discover routes entirely in your own, unique way with Free Roam. Spawn into an empty route of your choice and place down any formations that you desire, wherever you like! Climb aboard a train and set a path to anywhere you wish to explore, and just drive there. This is your sandbox experience. It even works in Timetable Mode!

Scenarios

Scenarios deliver individual, more narrative-driven gameplay, ranging anything from unique weather challenges, lineside obstructions, faults or disruption to one-off rail operations and services. With a step-by-step instruction set, Scenarios are a perfect way to dive in and experience a handful of what any route has to offer.

Timetables

Timetables represent a full 24-hours' worth of services on any route. Traffic volumes can vary throughout the day and night, and AI traffic can vary by season. With trains constantly moving about, string together your own experience by driving your own shift patterns, riding as a passenger, or watching all the trains go by.

Rail Journeys

Rail Journeys tie together Scenarios and Timetables, along with relevant Training, so you can learn all you need to know about a train, then put that theory into practice throughout a range of increasingly challenging experiences. Once you're all done with the included chapters, there's still the rest of the timetable to explore!

Quick Play

Quick Play will randomly select any Training, Scenario or Timetable Service that you haven't yet completed, from anywhere in your collection. Maybe you will be driving a train you haven't tried yet, or revisiting a classic route you haven't experienced in a while. Quick Play also lets you pick between duration times, so you can even squeeze in a quicker service if you're in a hurry.

CREATORS CLUB & DOVETAIL LIVE



You can find more detailed information on all these features in subsequent pages throughout this guide.

NEW – Formation Designer | COMING POST-RELEASE

Using your entire collection of locos, units, rolling stock and custom liveries - you can now assemble your own formations as you please. Within the confines of coupling and braking characteristics, piece together your perfect custom train exactly as you want it, then take that formation and put it to use in Scenario Planner, but also in Free Roam!

NEW – Photo Mode

A train races past, you fly over a bridge, or the sunset just looks awesome – with Photo Mode, you can capture it all! Pause in the middle of all the action, and then select Photo Mode to enter a space where the world is frozen, but you can still move the camera – tweak with camera effects and align the perfect shot. Save shots in your own Gallery, and upload them on Dovetail Live.

IMPROVED - Livery Designer

Expand your creativity with the Livery Designer. Now you can apply custom text using textbox input, selecting from the suite of available in-game fonts. Made a mistake? Undo & Redo are now possible! Give your livery a description so people know what it is, and choose whether a livery is active or hidden for Timetables. Oh, and now you can place 1000 decals per vehicle!

IMPROVED - Scenario Planner

Make more detailed scenarios with the Scenario Planner. Write a description to set the scene, and pick custom weather for an additional challenge! Chain paths for multi-step movements, and make routes busier than ever by spawning and despawning AI in portals. Let the action unfold with custom start times, the AI can start to move before the player service begins.

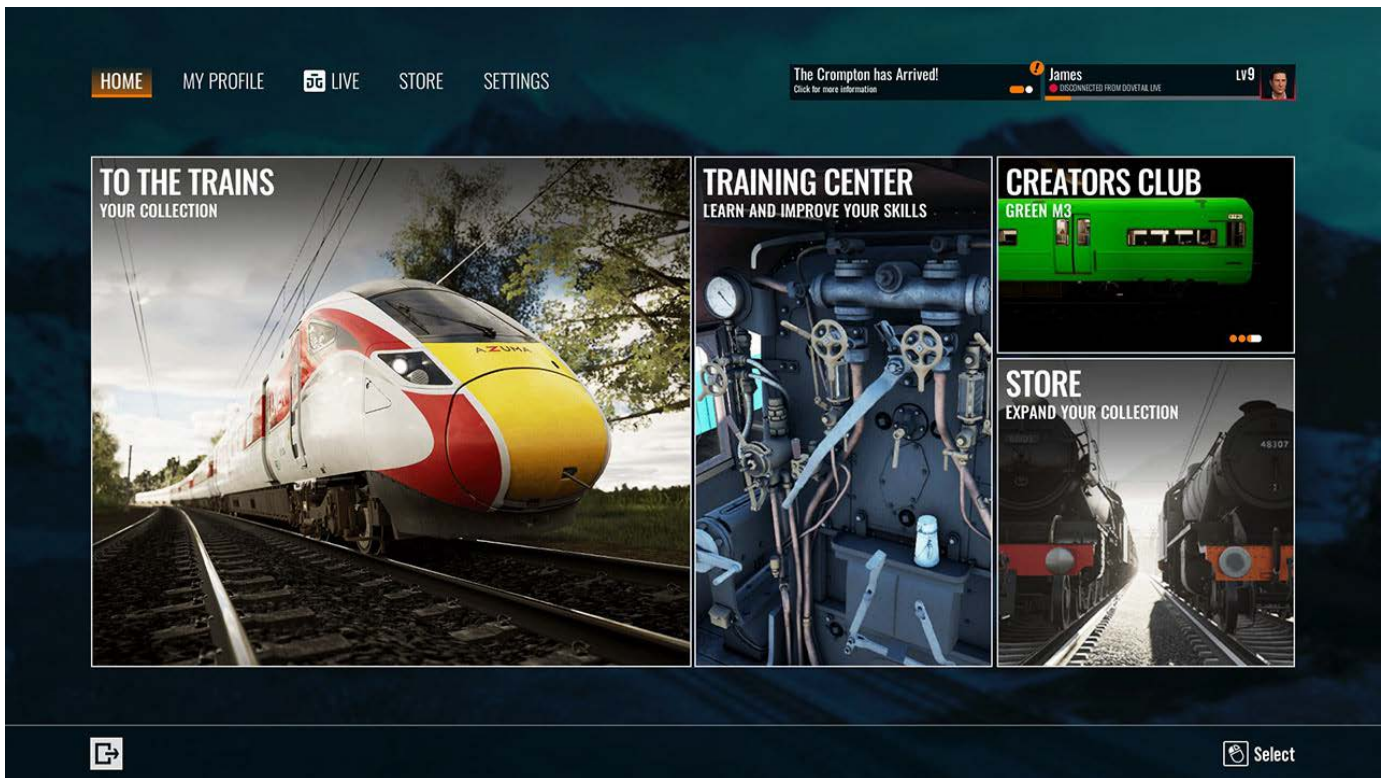
Online Sharing Hub

Made something that's just too good for others to miss out on? Or maybe your friends have made their own content and you want to give it a go. With the Online Sharing Hub, you can upload and download custom-made liveries, scenarios and formations, share content across all platforms and discover a whole new world of experiences.

Mastery

Complete challenges and unlock rewards! With the power of Dovetail Live, complete a series of challenges with every route to unlock additional items for your content; new scenery tiles which add something unique to every route, as well as additional decals that can further power your creativity in the Livery Designer.

NAVIGATING TRAIN SIM WORLD 4



The first time you launch Train Sim World 4, the initial thing you will need is a profile. If you are already a TSW3 or TSW2 player, you will be able to import your existing profile, but if you're new, you will be able to pick a name, character, and also a preset for your experience, which will turn on and off various ease-of-access settings, as well as direct you towards the fundamental tutorials if needed. You can always go into the settings menu and change these later.

Now that you're all set with a profile, and you've potentially played the fundamental tutorials, welcome to the main menu!

To The Trains will take you into a further menu where you can start to select your gameplay, you can choose to pick your experience either by route, train, or journey

Training Center is the hub for all fundamental and train-specific tutorials – if you're brand new to trains, this is where you will have started already, but it's also where you will find new training for other locomotives

Creators Club is the hub for all the in-game creative tools, Livery Designer, Formation Designer and Scenario Planner, as well as the Online Sharing Hub

Store will let you have a peek at the additional content old and new, there are over 80 loco and route expansions for you to pick and choose from, with more on the way!

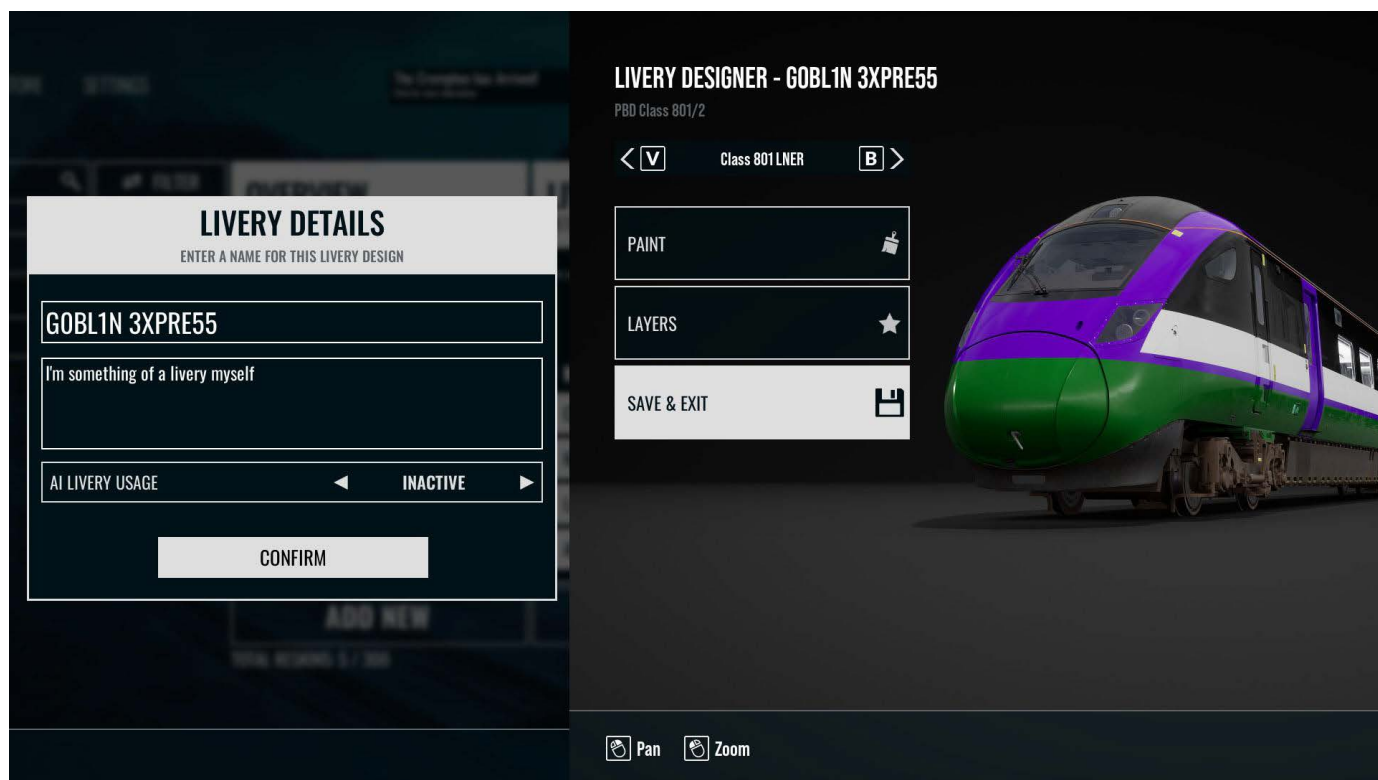
The settings page will open the various options and parameters you can set to customize your experience – the available pages will vary per platform.

Dovetail Live is the home of all things online, you can check your Mastery progress, access and manage your photo gallery, catch up with the latest news and articles, there is also access to the Creators Club via this page.



THE TOOLS OF TRAIN SIM WORLD 4

LIVERY DESIGNER



Welcome to the Livery Designer! Before you get started, the first thing you must decide is what train you would like to make a livery on - all TSW2-TSW4 content is compatible with the Livery Designer, as well as some select TSW2020 and older content.

The settings when making a new livery are straightforward but help you identify and categorise your custom collection. Kick things off by choosing a name, it can be whatever you want it to be, so long as it's sensible, just something that help you, and others, know what they're about to see! You can also add a description to add more detail about your livery, maybe it has deep lore and background... or maybe you just want to say it's cool, either way this is the perfect space for that.

Lastly, and a key function for how liveries operate, you can select whether your new design will be Active or Inactive, and this applies to the function of AI usage within Timetable Mode.

Active liveries will be able to be selected by the Timetable's substitution system, as well as being selectable by players, and of course available in Scenario Planner, Free Roam etc.

Inactive liveries can still be selected in all manners of playable services and formations, but they will NOT appear as AI in timetables. So, if you're working on something intricate and haven't quite finished yet, or creativity got the better of you - bright pink and neon yellow everywhere - but naturally that does not belong in moody Peterborough, you can hide it from view.

You can change settings at any time, liveries can be renamed, or made active/inactive whenever you wish.

LIVERY DESIGNER CONTINUED



Now that you've made a new, albeit very plain livery, it's time to give it some colour, or maybe even some color. Let's run through all the ways you can modify your designs exactly how you like them!

Paint - This will change the whole colour of the otherwise blank, grey canvas, this is good if your livery will have one overall tone or base coat.

Decals - This is how you add detail, lots and lots of detail! Decals are individual shapes which let you recolour specific sections of the chosen vehicle. Many decals are able to be pigmented as you please much like the painted body, but some are also predefined in colour, such as logos or symbols.

You can manipulate decals in various ways, resize, warp and rotate to contour around the locomotive or to build up your own bigger shapes and patterns. You can toggle between uniform and individual control of a shape's axis, and if you need to you can choose the main face the decal is on, the front, the left side of the vehicle etc. You can also project decals, projecting manipulates the depth and wrap of a given decal. For example, on many locomotives there are handrails which you may want to highlight, but without block filling in the body behind it. Setting Angle to a low % and depth to a high % would project the decal only a certain depth into the model, meanwhile the angle would ensure it covers the whole geometry of the handrail, not just the outside edge. Setting both values to full will mirror a decal on the other side of the vehicle, very useful, but be mindful of decals with text on!

Speaking of text, you can add decals by the letter, or type out what you want text to say as one group. There are multiple fonts available, including additional ones unlockable via Mastery for various route add-ons.

And speaking of groups, you can group any selection of decals which are all on the same side of a vehicle, meaning they can be moved and copied as a single entity, this is useful if you need to duplicate a custom logo or design, which you don't want mirrored, onto the other side of the vehicle.

If you make a mistake you can undo and redo steps, this saves the bother of trying to remake a decal in a certain way, and helps you get back to the point before it all started to go wrong. You can simply just reset a decal as well though, back to its default scale and rotation settings and start again.

Per vehicle, you can place up to 1000 layers of decals, allowing for lots of detail to be added, everything from text and logos to warning labels and rainbow stripes.

Don't forget to save regularly, and once a livery is complete, take it out onto the rails, and capture some fantastic screenshots of it! You can also share your custom liveries on the Online Sharing Hub, and of course, download other people's creations.

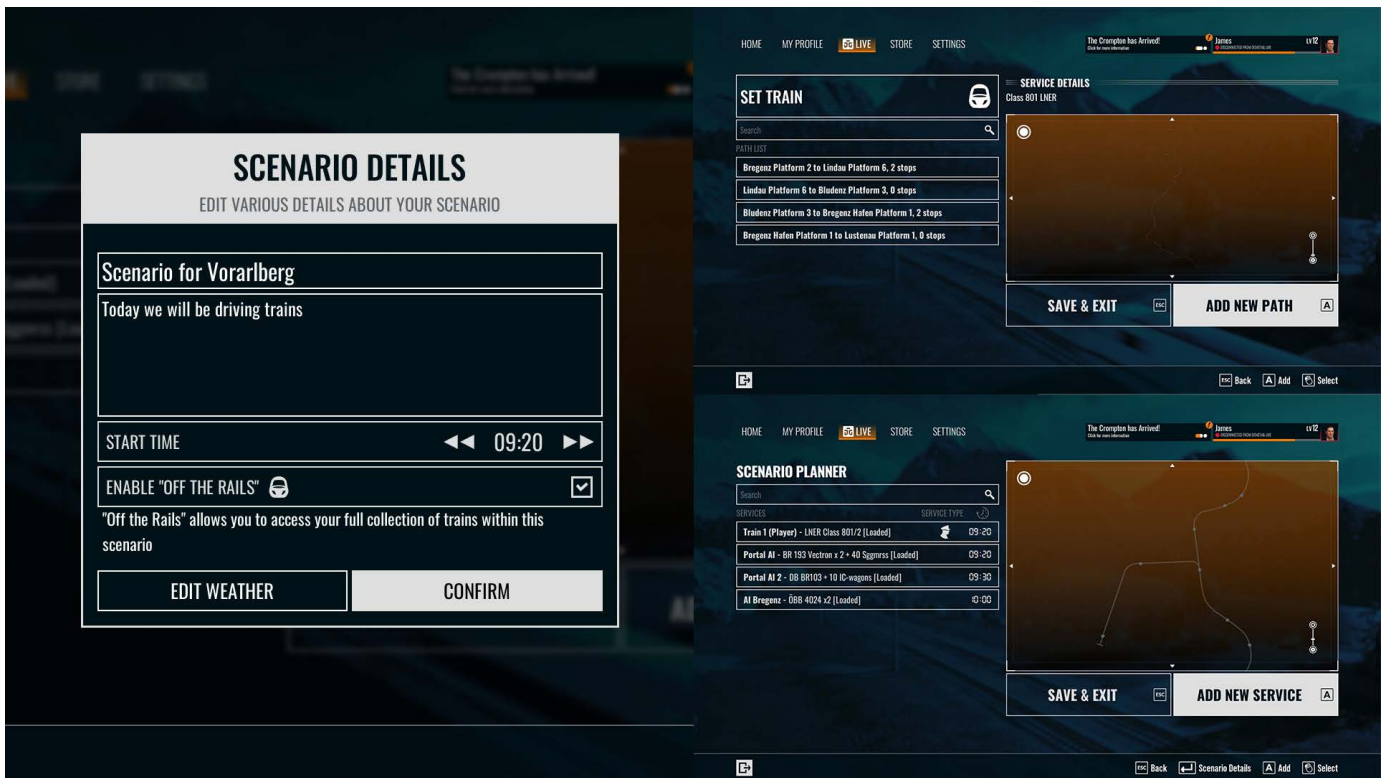
FORMATION DESIGNER

We will populate these pages with information when Formation Designer releases for Train Sim World 4

FORMATION DESIGNER CONTINUED

We will populate these pages with information when Formation Designer releases for Train Sim World 4

SCENARIO PLANNER



Welcome to Scenario Planner! First things first, after entering it from the Creators Club menu, the first thing you must decide is which route you wish to make a scenario on - all routes are compatible, so it's all down to where you want to drive.

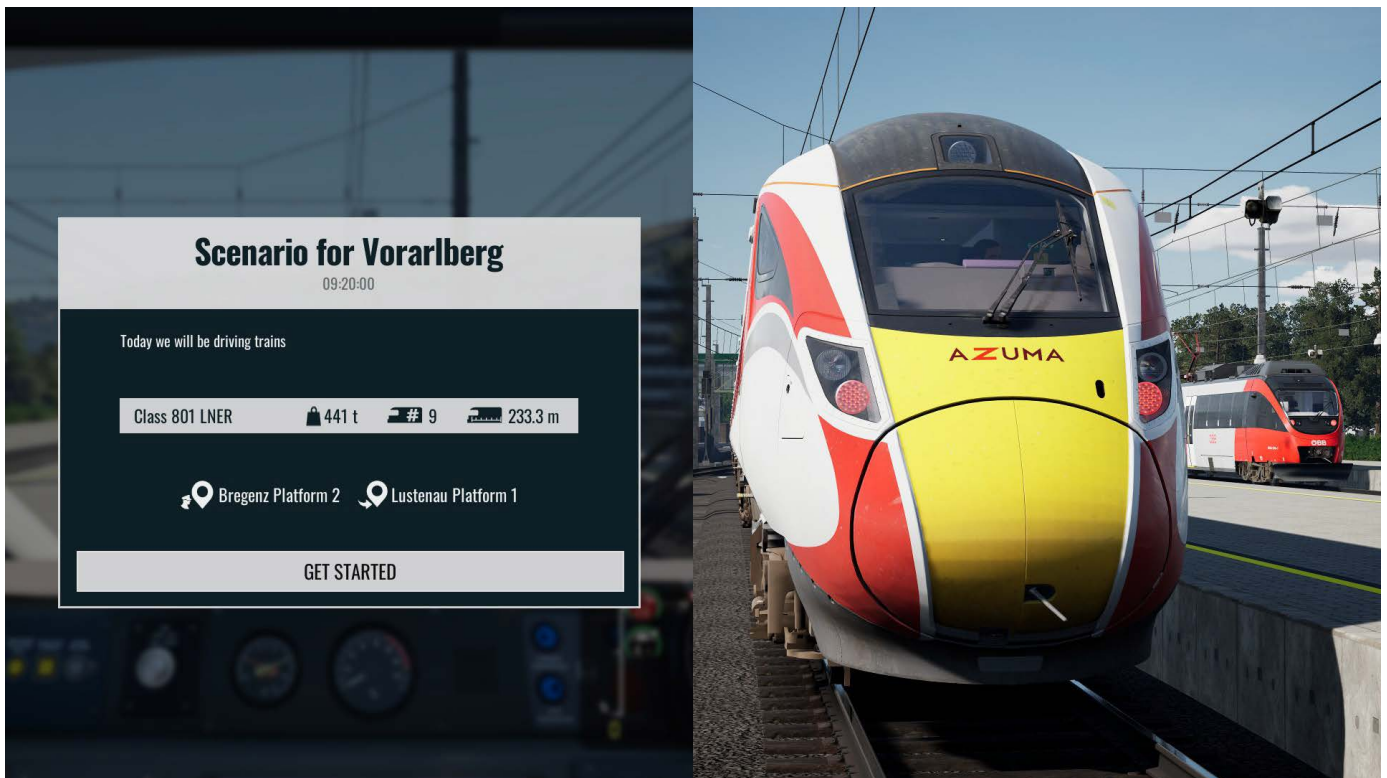
Create a new scenario and setup the various parameters which define it, such as the name, a description to explain what the scenario is about, when the start time will be, what season and weather should be, and whether "Off the Rails" should be enabled or not. Off the Rails allows you to use your full suite of trains without any limitations, if you want to run an electric passenger train on a diesel freight route, you can!

With the basics now set, it is time to add your first service. Again start by filling out its parameters, the name will help you identify it once multiple trains have been setup, player controlled lets you choose which train is the player's, the rest will be treated as AI. You can only have one player train per scenario so ticking the box on multiple services will untick it on the previous ones. Lastly, passenger or freight service type dictates whether door loading is necessary or not.

To add your first path, you must pick a point where you wish the train to start, which path it will follow from that point, the intended destination, and then tick any intermediate stops along the way. Once that service is confirmed, and you have selected the train you wish to run on it, you have a working scenario! However, there is more that can be done.

In Train Sim World 4 you can add multiple paths to a single formation, this works if a new path starts where the previous one finished, so all TSW4 content has been setup with this in mind, and older content may work but is not guaranteed. So for example, on Vorarlberg, one can drive from Bregenz Platform 2 to Lindau Platform 6, then to Bludenz Platform 3, and then to Bregenz Hafen Platform 1, and then to Lustenau Platform 1, and then to... you get the idea! Once a player train ends at a marker from where there is no further paths, that would be the end of the scenario.

SCENARIO PLANNER CONTINUED



The other thing that can be done with Scenario Planner is setting up AI services to use portals throughout the route. Portals are found at certain endpoints of routes, or where a junction splits off and heads away from the represented area, these are what the timetable use to spawn trains in from “the void” and where they are set to after completing a service. This means you can setup additional AI which don’t have to start or finish on the route, a player train can follow another service which doesn’t hold up the player forever, an additional AI can join the route as if it’s coming from somewhere else, as per reality.

It is important to note that portal services are only for AI use, a player train cannot use portal paths.

You can also now set the scenario starting time independent of the player starting time, so if you want the AI to be doing its magic before the player train is asked to start, you can do, this lets action build up around the player train, AI can arrive, maybe even overtake ahead before the player service starts.

Lastly, when making paths and picking formations, you will largely be limited in train length by the size of the markers your service will spawn at, as an overly long train could foul junctions, buffers or signals causing unintended side effects, rendering a scenario unplayable.

If you make a scenario using custom liveries, and upload that scenario onto the Sharing Hub, it is recommended but not essential that the custom liveries are also uploaded, anyone who plays your scenario, or if you play a scenario without having liveries installed, trains will default to showing their original livery.

FREE ROAM



Welcome to Free Roam! Here you can enter any route you own in a blank slate status, with no static, AI or player services present on the route, it's your empty sandbox.

You can access Free Roam when you are in the Choose a Route menu, Free Roam will be adjacent to Scenarios, Timetable and Training, and then much like within the Timetable, you can choose where you wish to spawn on foot, selecting the time, date, and weather at your discretion.

Once you are loaded in, you will be on foot and no trains will be around, so it's time to add one! Open the train spawning menu (TAB on keyboard, Left D-pad on controller) and choose from the list of train formations, you can also spawn trains with custom liveries on! Once you've clicked spawn you will be presented with a coloured bar on the track, this indicates the space the train will take up, the bar will be red if the train cannot be spawned, for example if too close to buffers, but once in a good spot the bar will go green, and once confirmed, your chosen train will pop into existence!

Now that a train exists, it's time to drive it somewhere by setting a path. Start by sitting in the driver's seat, you can only set paths for player trains. Open up the map and click on the train you are sat in, and from here you can select your path by moving across the map and clicking where you want to travel to. With a path set, all signals and junctions will be set by the dispatcher for you to embark on your journey.

You can cancel a path and set another whenever you wish, however it is recommended to not do so while moving, as cancelling a path will reset the dispatcher, and you won't have a pleasant time if the signal in front of you goes back to red! You can also remove trains themselves, again, while stationary and not sat in the cab is recommended.

If you go past or stop near some sidings, you can place wagons down in them and set a path to couple to them, although you may still need to request permission to pass a signal at danger.

FREE ROAM CONTINUED



A few things to note with Free Roam and its unique quirks:

- Naturally, you can explore basically anywhere the map lets you click on, however, there is always the chance this paths you down a line which was previously not intended to be a playable area, and you may come across some boundaries and invisible walls
- If you are faced with an invalid path, chances are you have clicked on a track which is inaccessible from your current location. Try getting there using multiple paths, you can always keep setting new ones up, and with a path set, you can also add go-via points by clicking on the in-map train for a 2nd time
- Free Roam works within the limitations of realism, Off the Rails mode from Scenario Planner is not represented here, so if you decide to spawn an electric locomotive on an unelectrified track, you may also need to spawn a compatible diesel to drag it around, but, you can still spawn literally anything, wherever you like!

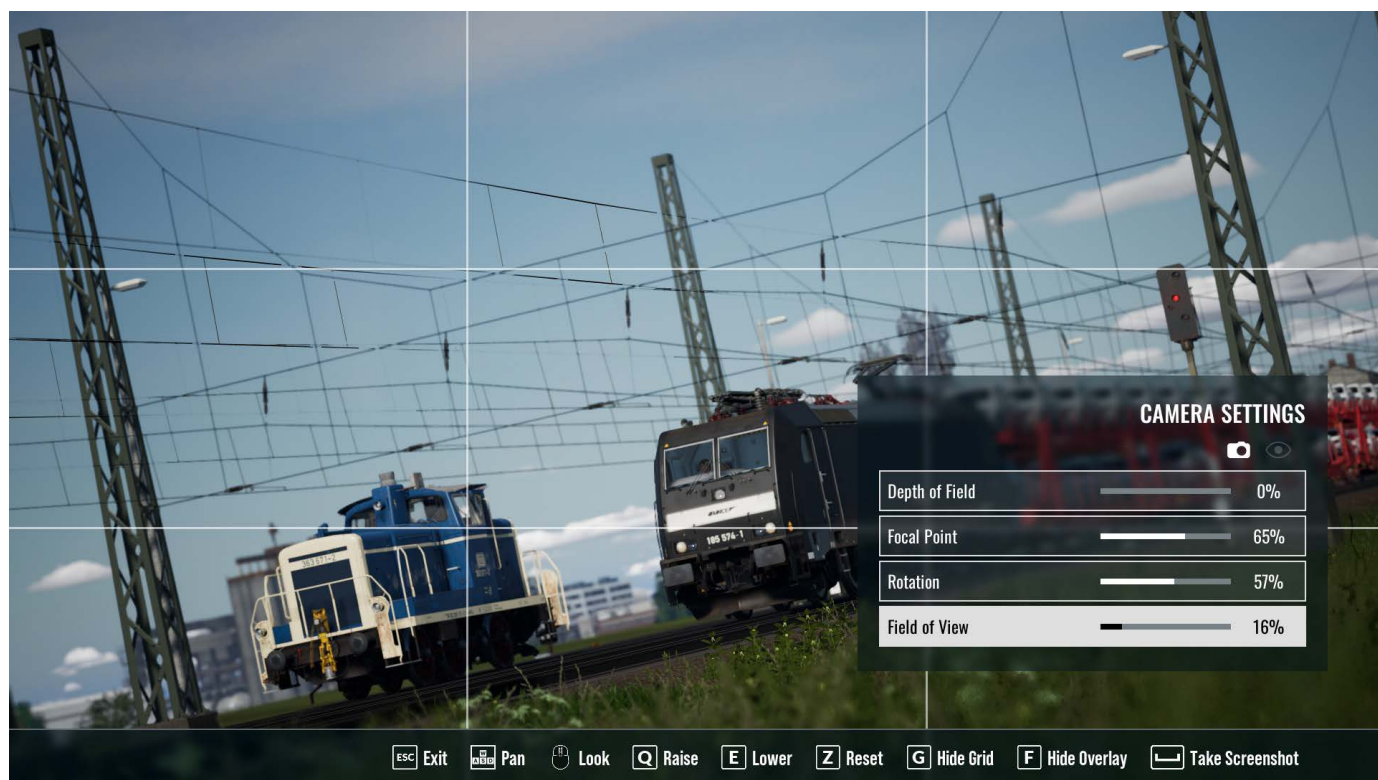
Lastly, and perhaps best of all, Free Roam works within Timetable Mode!

When in a timetable, either spawning on foot, or say you've just completed a service, you can use the same train spawning system to place trains and set paths within the active timetable. This also presents some interesting things to consider:

- The dispatcher will have to work your new path around existing AI services, this will mean waiting for clear blocks, vacant junctions, you will be at the mercy of fitting in
- You can interrupt the timetable session. If you cause AI trouble by being ahead of it, leaving a rogue wagon somewhere, or preventing a coupling instruction from taking place, services may not be able to complete, or if you delete the wrong path or formation in the map view, may cease to exist entirely!

If you break Timetable Mode, and chances are you will, don't worry, it will be fine again in a new session.

PHOTO MODE & GALLERY



Welcome to Photo Mode, with which, you can pause the game in the middle of the action and have the freedom to customise and capture a screenshot within a frozen world.

As soon as the right moment strikes, pause the game as you would normally, and Photo Mode can be found within the Options tab of the Pause Menu.

Once in, you can use camera controls to align your perfect shot, then using the sliders on the right-hand side, you can also control the focus, depth of field, camera rotation, field of view, exposure, saturation, vignette and brightness. Explore and practice using different techniques to create the shot that works best for you.

To help align the shot, you can also enable a grid overlay which emulates how real-life photography is composited. This is known as the Rule of Thirds.

The Rule of Thirds is a guideline which is designed for a photographer to align their chosen subject within a certain space of a photo, namely, along the left, right, upper and lower thirds. Try practicing aligning your chosen subject (it doesn't have to be a train!) with the grid overlay enabled and compose a lifelike photo. If all elements of your shot follow the rule of thirds, you will have a naturally pleasing-to-the-eye image.

Once your shot has been captured, you have the option of saving it, or saving and uploading it. An image saved locally will be available for viewing within the in-game Gallery, and an uploaded image will be viewable within the Dovetail Live gallery online. If you have captured Railfan shots in previous Train Sim World titles, these will also be automatically available in the Gallery.

Use your shots to share amazing moments with your friends or followers, or to make your own wallpaper backgrounds, it's up to you! The shots you capture can also be used when uploading an item onto Creators Club, adding a creative edge to make your new livery, scenario or formation stand out amongst the crowd.



THE FUNDAMENTALS OF TRAIN SIM WORLD 4

GENERAL DRIVING PRACTICE

Here are the basic steps and tips for getting any train moving, helping you get familiar with the overall flow to cab setup and common procedures. For any train-specific information, including the location of driving controls, you can find this later on in the document. You can also play the tutorials for additional training.

START UP

- Insert the Master Key if there is one
- Ensure the Reverser is in Neutral
- Ensure that the brakes are applied, you may need to cut them in first
- Activate any safety systems as you desire throughout the cab, and complete any necessary self-tests
- Set the external and internal lights as appropriate, such as instrument lights, headlights
- If you are driving a passenger train, complete any passenger stop instructions as appropriate
- Ensure the starting signal will allow you to proceed
- Move the Reverser into the intended direction of travel
- Release most of the brakes in preparation to move
- Apply some power and release the rest of the brakes once generating traction

SHUT DOWN

- Once you have gently come to a stop, apply full brakes
- Move the Reverser into the Neutral position
- If you are driving a passenger train, complete any passenger stop instructions as appropriate
- Set the external and internal lights as appropriate, such as tail or marker lights, cab lights
- With brakes fully applied cut out the braking as appropriate
- Deactivate any safety systems which were turned on at the start of the service
- Remove the Master Key if there is one

There are many intricacies to learn about every train and route in order to successfully drive them, but there are some pointers which can apply in almost all circumstances that put you in good stead for avoiding emergency stops, stalls and runaways!

Smooth Sailing - Safety and comfort should always be kept in mind when operating a train, so when possible it is always best to offer a smooth experience, no sudden jolts into full power or brakes

Stay on Time - No one likes a late-running service, and apart from any pending disasters you should be able to stick to the schedule without too much trouble, as timings take train speeds and performance into account

Be One Step Ahead - Trains do not stop quickly like cars do, so ensure you're thinking about what's next, be prepared to stop at the station in plenty of time, and give yourself the distance you need to obey signals

It's a Limit not a Target - It can be tempting to try to stick to the posted speeds as much as possible, and while in many circumstances that is fine, always be vigilant, for example if you crest the top of a hill at line speed, with the full momentum of a heavy freight train, by the time the rear starts pushing you will already be going too fast, and in some cases, the brakes then won't be able to keep up

Weight on Your Shoulders - Trains can be very heavy, and you must treat them as such when driving, too much power from a standstill can cause wheelslip, and this escalates with gradient and weather conditions

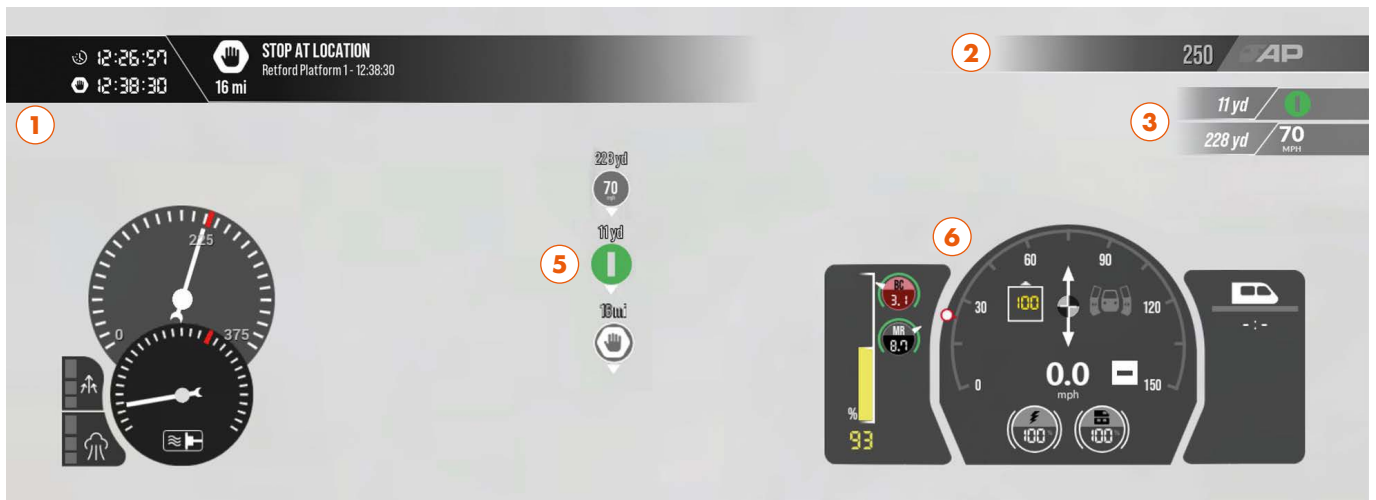
Enjoy Learning - Don't be afraid to make a mistake, you can always stop, reset and try again. Practice makes perfect, and celebrating failures is part of the experience

THE HUD & EASE OF ACCESS

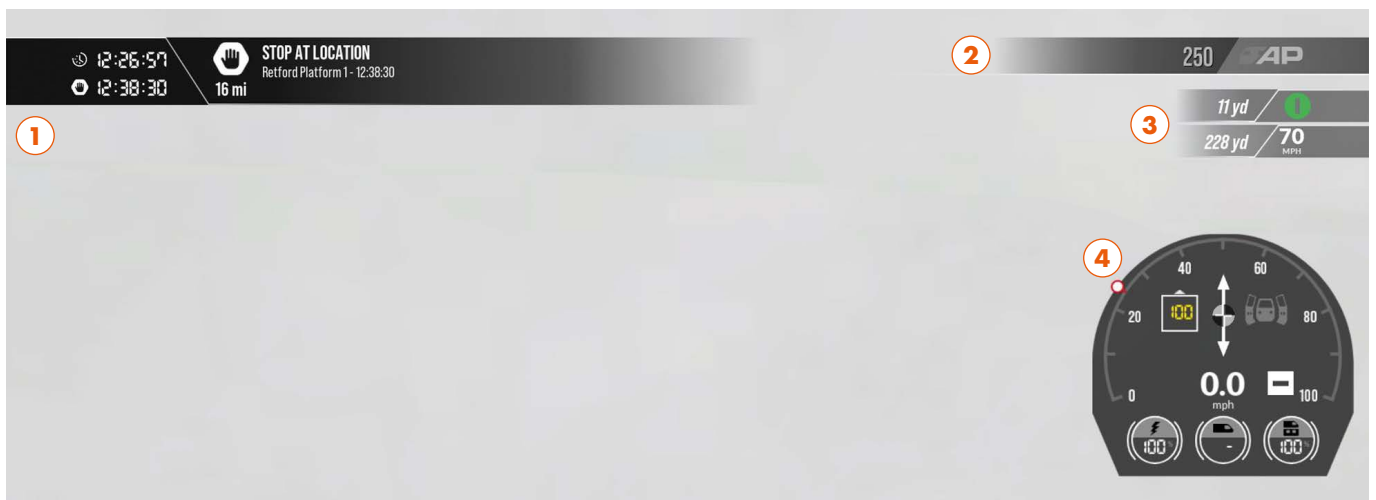
Essential to driving trains, is information. In reality, that information comes from knowledge, experience and the train cab, and you can achieve all of those here, but to help you along the way, enter the Heads Up Display.

There are multiple HUD options to choose from, from overall style to what info is displayed and where, all to perfectly cater to your driving. Once you are proficient enough, maybe you could ditch the HUD altogether for the ultimate experience. But for now, let's go over the different HUD options in Train Sim World 4. Please note the HUDs shown here are compressed for ease of viewing

NORMAL HUD



SIMPLE HUD



MINIMAL HUD



THE HUD & EASE OF ACCESS CONTINUED

NORMAL HUD

- 1 - This top left bar provides the current time, as well as time, distance and details of your next instruction
- 2 - This is the Action Points bar, which shows the total accrument of points throughout a service, this can be toggled on and off on any HUD
- 3 - These right-hand side bars can show the details of the next signal, speed limits and their distances, these can be toggled on and off on any HUD
- 4 - This is the steam pressure gauges, so only shows for steam locomotives, the top gauge is boiler pressure, the lower is cylinder pressure, you can also see airflow from the blower and dampers on the left
- 5 - These symbols are floating versions of the stop, signal and speed limit markers which point to where they are within the world, these can be toggled on and off on any HUD
- 6 - This is the speedometer and brake gauges, where you can find your actual speed vs the speed limit, the status of different brake systems, how much power you're applying, whether the doors are open or not, the gradient, and more (including signalling systems and cruise control on different trains)

SIMPLE HUD

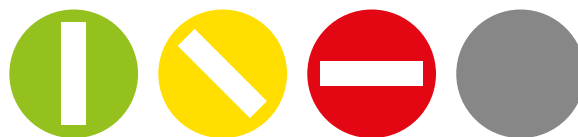
- 1 - This top left bar provides the current time, as well as time, distance and details of your next instruction
- 2 - This is the Action Points bar, which shows the total accurment of points throughout a service, this can be toggled on and off on any HUD
- 3 - These right-hand side bars can show the details of the next signal, speed limits and their distances, these can be toggled on and off on any HUD
- 4 - The speedometer in the Simple HUD does away with the side bar brake and gradient information, reducing the amount of input to focus on the essentials, although some of the removed detail can still be found in the train cab instruments

MINIMAL HUD

- 1 - The top left bar now provides a slightly different set of information, the time is still there, but the distance to th next instruction has been replaced with a barber pole, this will count down visually and change colour as you approach the next instruction, or as you load passengers. Also now featuring in the bar is current speed and gradient information
- 2 - This track monitor allows you to see the upcoming signals and speed limits for the next 2km or 1.25 miles, this helps to look ahead, and see speed reductions or quickly dropping signals with enough time to plan for them - this can be toggled on and off on any HUD

OTHER HUD INFO

The signal aspect uses a simple traffic light and bar system to represent the general state of the next signal, not directly relaying what an in-world signal might be saying, for example if a signal is a diverging aspect, or speed reduction, that information is only present on the actual signal itself. You can also toggle to keep the distance to the next signal, while hiding the aspect entirely, this means you must rely on seeing the signals out of the windscreen to follow them appropriately.



Lastly, you can toggle how certain information can be displayed. You can choose to leave everything on their automatic settings, or force the HUD to use imperial or metric measurements as you choose.

THE HUD & EASE OF ACCESS CONTINUED

EASE OF ACCESS

Depending on your preference, and set by various defaults when creating or importing a profile, there are a handful of additional settings which can help alter the experience to your liking.

AUTOMATIC JUNCTIONS

There are generally 2 types of junctions on routes, automatic and manual. Automatic junctions are set by the dispatcher and are usually found on the mainline, protecting big junctions and stations. Manual junctions are most often found in yards and sidings, and have a lever or handle to physically operate in order to change the intended direction of travel.

In Train Sim World, when Automatic Junctions are enabled, this will auto-set manual junctions for you as well, meaning you do not have to get out of the cab and walk to junctions on foot, nor look on the map and try to navigate your way through a yard manually.

AUTOMATIC COUPLING

Much like junctions, there are multiple ways of trains coupling, in many modern trains, its a case of drawing up slowly to another train, pushing a button, and done, but in others, particularly where chains, buffers and knuckles are involved, the process is a lot more labouring; attaching the chain to the hook, dropping or unlocking the knuckle, all on-foot work.

In Train Sim World, when Automatic Coupling is enabled, you will be able to hand off the complexities and simply perform a coupling procedure by pressing a button when prompted.

The combination of automatic junctions and coupling makes procedures like shunting/switching a much more driver-focused experience, you can stay in the cab and worry about the train, without getting lost or constantly leaving the cab. Not only does this make it easier in many respects, but ut is also more realistic, as generally speaking, yard workers would be handling most of the tasks anyway.

These options can be toggled to your preference at any time.

DRIVER ASSISTS

If you're attempting to do something in a train, and there's a step you've missed, or something you've selected incorrectly, then driver assist pop-ups should advise you so you can correct whatever needs doing for you to continue.

I'M STUCK

If you're in a bit of a situation and just want to get out of it, be that stuck on brakes, or the train won't take power, in the pause menu we have a Reset button - this will return the train to a default state so you can re-setup the train again, and get back on the move.

Remember, you can always come back to the Training Center to refresh your memory.



THE ROUTES OF TRAIN SIM WORLD 4

TRAINING CENTER



The Training Center is the all-inclusive hub for learning the fundamentals about Train Sim World 4 and its included locomotives. You will learn everything from how to move and interact with the environment, how to interpret the HUD, and get to grips with the basics of making a locomotive move.

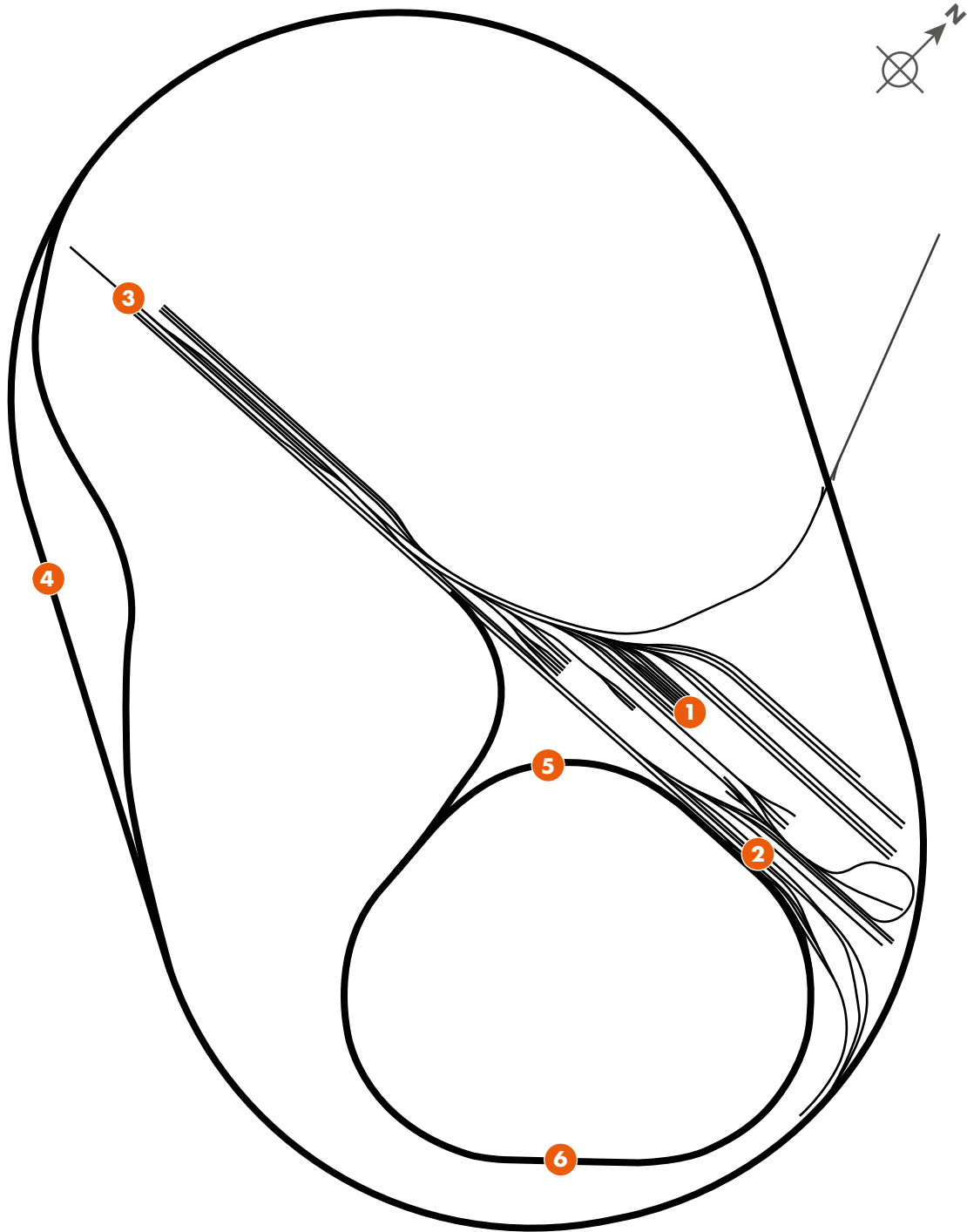
The route is based on the Wildenrath Test Track near Düsseldorf, Germany, but with our own buildings, facilities, and scenery to make it the perfect environment for learning about all your trains. Included with the Training Center is a BR Class 323 EMU, BR Class 66 Diesel Loco and LMS 8F Steam Loco to learn the basics of Train Sim World 4 on including; basic movement, coupling/uncoupling, passenger operations and more, and all other loco training is also done on the Training Center. You can also freely explore the route, practice driving trains endlessly around the loops, either by spawning on foot and using the provided trains, placing your own, or using scenario planner.

More advanced training, such as signalling systems, are still done on the main routes themselves, but you can still access these through the Training Center screen.

Training Center Tips & Tricks

- All the junctions are manually controlled, and the route has no signalling, so you can go wherever you want!
- In Scenario Planner, use Off the Rails mode to bring anything from your collection onto the route, create weird and wonderful mixes in this free roam environment
- The outer loop encompassing the Training Center is ready for 300 km/h operation, which train can you do the fastest lap in?
- You can explore almost everywhere on-foot in the Training Center, from the building interior to ladders onto the top of depots, or maybe just a nice bench with a view
- There are several Map Route Tasks dotted around the route to place, can you find them all?

TRAINING CENTER ROUTE MAP



- 1 - Central Square
- 2 - Nav Hub
- 3 - Switching Area
- 4 - Station One
- 5 - Metro North
- 6 - Metro South

TRAINING CENTER BR CLASS 66

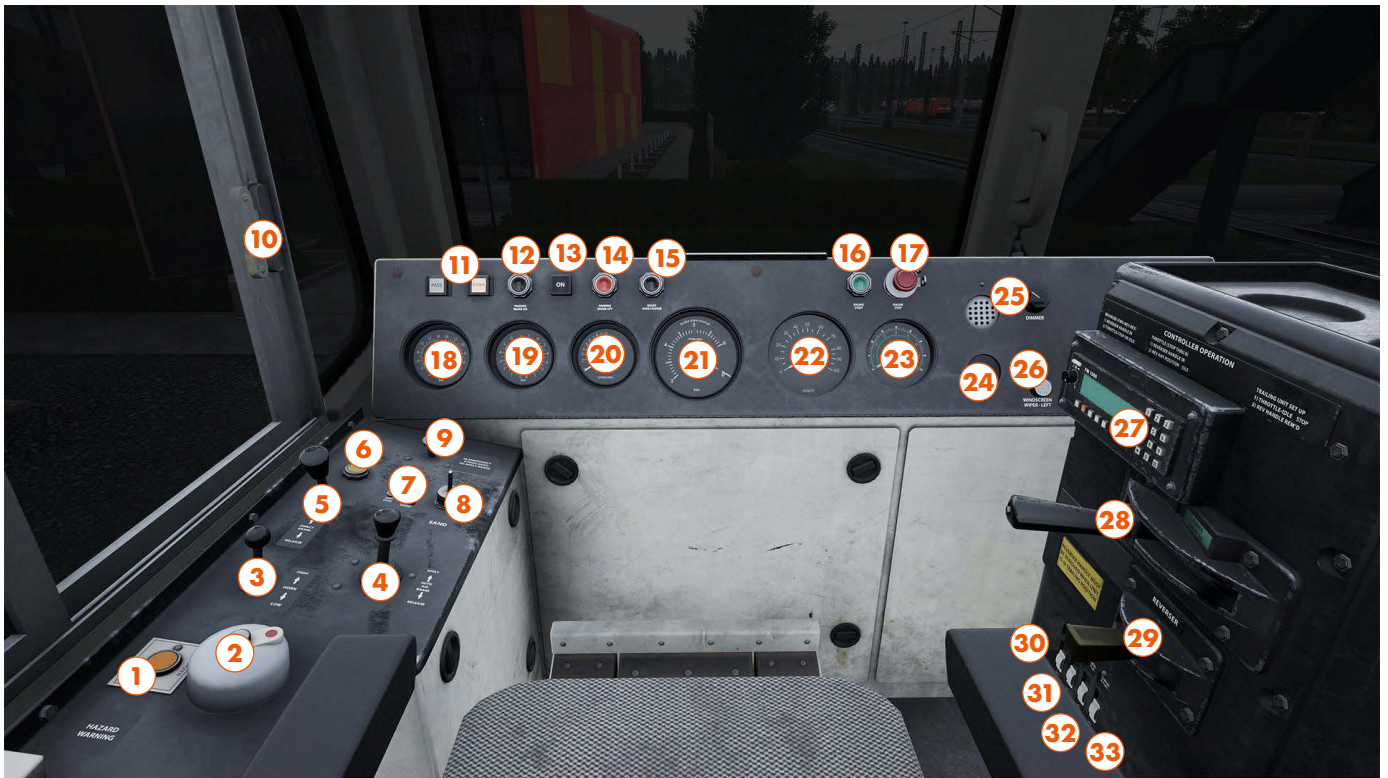


Perhaps one of the most widespread and successful locomotives in the UK, the Class 66 was introduced following the successful albeit limited number of Class 59s. Built across the pond in Ontario, Canada, this massive fleet of locomotives bears many operational similarities to their North American cousins. Capable of hauling a large variety of freight and able to fit almost anywhere, there aren't many places you won't see a 66 out and about. Between 1998 and 2015, a total of 480 locomotives were delivered directly to the UK, with many more also built for Continental Europe.

The Class 66 sees use across multiple routes in Train Sim World, including the East Coast Main Line.

Manufacturer.....	Electro-Motive Diesel
Build Location.....	Ontario, Canada
Build Date.....	1998-2015
Number Built.....	480 (UK Locos)
Engine Type.....	Two-stroke V12 diesel
Prime Mover.....	EMD 12N-710
Traction Motors.....	6× EMD D43TRC
Power Output.....	3200 Horsepower
Length.....	21.39 Metres (70 ft 2 in)
Weight.....	127 Metric Tons
Top Speed.....	75mph (120 km/h)

TRAINING CENTER BR CLASS 66 CAB - 1 / 5



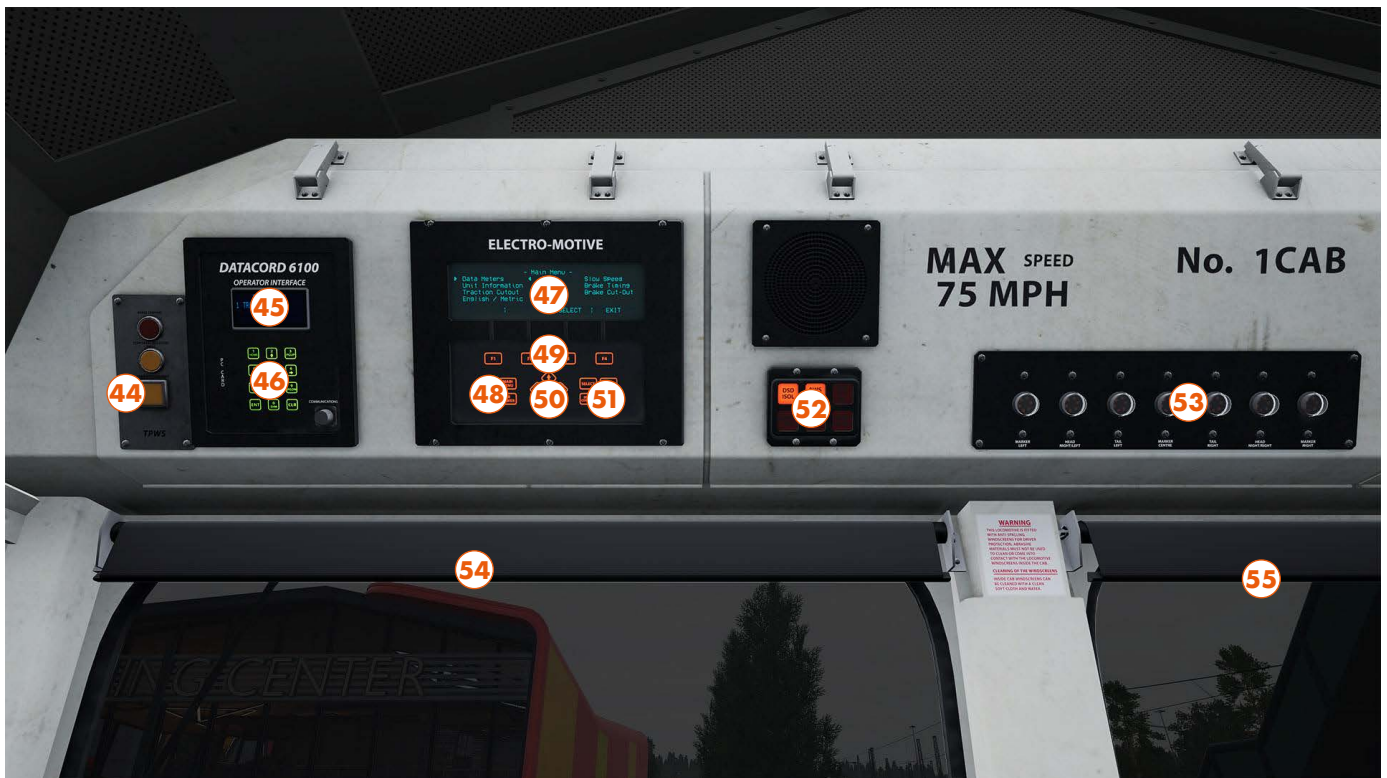
- | | |
|-----------------------------------|-------------------------------------|
| 1 - Hazard Lights Button | 18 - Main Reservoir Gauge |
| 2 - AWS Reset Button | 19 - Direct Brake Gauge |
| 3 - Horn Lever | 20 - Air Flow Gauge |
| 4 - Automatic Brake Handle | 21 - Automatic Brake Gauge |
| 5 - Direct Brake Handle | 22 - Speedometer |
| 6 - Train Length Button | 23 - Tractive Effort Gauge |
| 7 - Slow Speed Control Switches | 24 - AWS Sunflower |
| 8 - Sander Switch | 25 - Instrument Light Dimmer Switch |
| 9 - Emergency Brake Plunger | 26 - Windscreen Wiper Left Switch |
| 10 - Left Cab Window | 27 - Banking Comm Button |
| 11 - Brake Timing Indicators | 28 - Throttle Handle |
| 12 - Parking Brake Apply Button | 29 - Reverser |
| 13 - Parking Brake Indicator | 30 - Isolation Switch |
| 14 - Parking Brake Release Button | 31 - Engine Run Switch |
| 15 - Brake Overcharge Button | 32 - Generator Field Switch |
| 16 - Engine Start Button | 33 - Control & Fuel Pump Switch |
| 17 - Engine Stop Button | |

TRAINING CENTER BR CLASS 66 CAB - 2/5



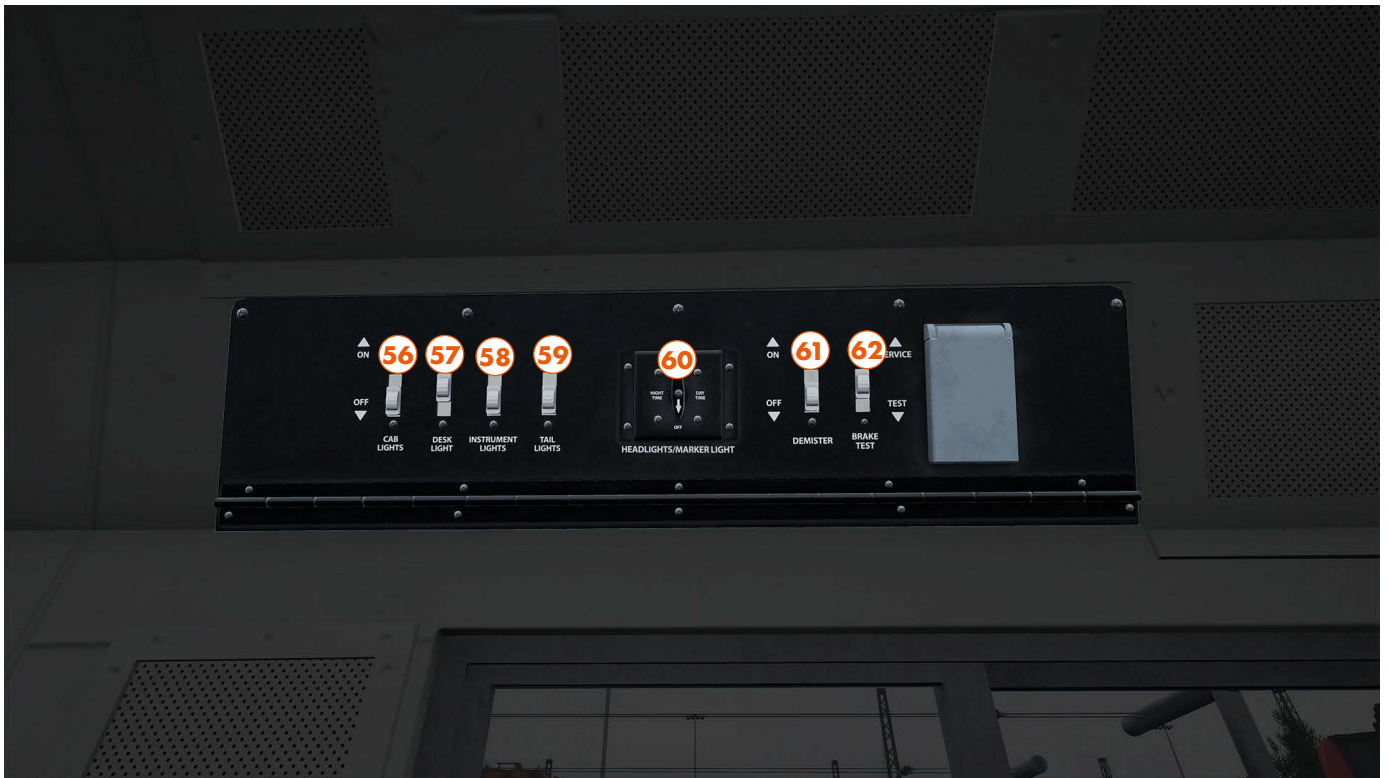
- 34 - Contact Signaller Phone
- 35 - Hot Plate Switch
- 36 - Windscreen Wiper Right Switch
- 37 - Fresh Air Lever
- 38 - High Speed Switch
- 39 - Overheating Switch
- 40 - Heater Speed Switch
- 41 - Driver Safety Device Button
- 42 - Horn Lever
- 43 - Right Cab Window

TRAINING CENTER BR CLASS 66 CAB - 3/5



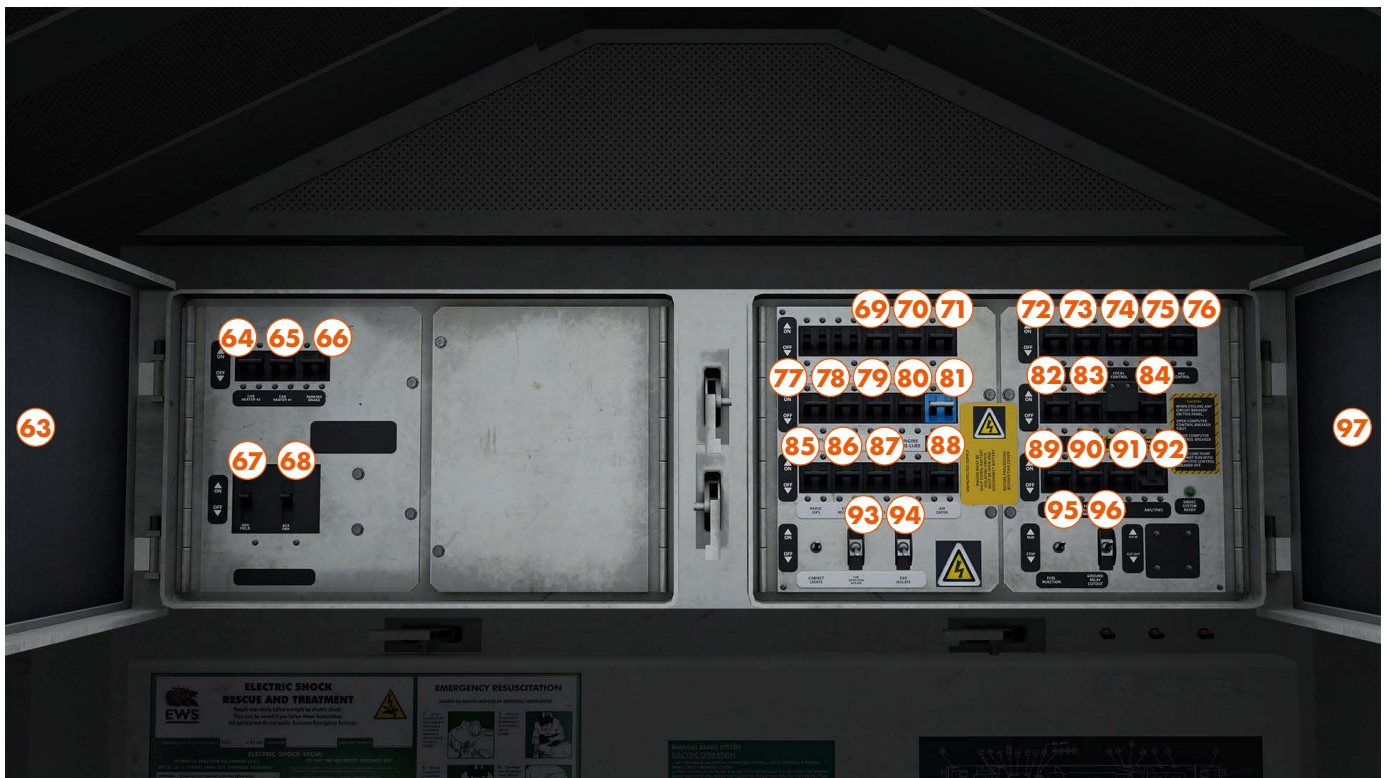
- 44 - TPWS Train Stop Override
- 45 - Train Length Screen
- 46 - Train Length Keypad
- 47 - Train Management System "TMS" Screen
- 48 - TMS Power/Options Keys
- 49 - TMS Function Keys
- 50 - TMS Arrow Keys
- 51 - TMS Selection Keys
- 52 - Safety Systems Indicator
- 53 - Head & Tail Lights Indicator
- 54 - Left Side Blind
- 55 - Right Side Blind

TRAINING CENTER BR CLASS 66 CAB - 4/5



- 56 - Cab Lights Switch
- 57 - Desk Light Switch
- 58 - Instrument Lights Switch
- 59 - Tail Lights Switch
- 60 - Headlights Switch
- 61 - Demister Switch
- 62 - Brake Test Switch

TRAINING CENTER BR CLASS 66 CAB (No. 1 Cab Only) - 5/5



- 63 - Left Fuse Cabinet Door
- 64 - Cab Heaters 2 Fuse
- 65 - Cab Heaters 1 Fuse
- 66 - Parking Brake Fuse
- 67 - Generator Field Fuse
- 68 - Auf Gen Fuse
- 69 - Windshield Heater 2 Fuse
- 70 - Windshield Heater 1 Fuse
- 71 - Fuel Gauge Fuse
- 72 - AC Control Fuse
- 73 - Control Fuse
- 74 - Local Control Fuse
- 75 - Engine Control Fuse
- 76 - Rev Control Fuse
- 77 - Lights 2 Fuse
- 78 - Lights 1 Fuse
- 79 - Headlights Fuse
- 80 - Engine Pre Lube Fuse

- 81 - ETCS fuse
- 82 - Aux Generator Field Fuse
- 83 - Aux Generator Feedback Fuse
- 84 - Computer Control Fuse
- 85 - Radio/GPS Fuse
- 86 - Event Recorder Fuse
- 87 - Tail Lights Fuse
- 88 - Air Dryer Fuse
- 89 - Main Generator Fuse
- 90 - Filter Blower Motor Fuse
- 91 - Fuel Pump Fuse
- 92 - AWS/TPWS Isolation Fuse
- 93 - Fire Detection Isolate Switch
- 94 - DSD Isolate Switch
- 95 - Fuel Injection Switch
- 96 - Ground Relay Cutout Switch
- 97 - Right Fuse Cabinet Door

TRAINING CENTER BR CLASS 66 - PROCEDURES & UNIQUE FEATURES

The Train Management Screen (TMS)

- The TMS can be found above the driver's windscreen
- It is used for controlling various functions of the train
- Using the push buttons to navigate it you can:
 - Cut in and out the brake control from the locomotive, useful if brakes are to be controlled by another locomotive in the formation
 - Change brake modes between freight and passenger, this changes the timings of brake applications, although some freight services just use passenger anyway
 - Isolating traction motors, in reality this would be for cutting out any problematic motors, although it provides an interesting challenge to move with less powered axles

PBL90 Brakes

- The BR Class 66 features what is known as the PBL90 Brake Control, a system which is mounted on the brake frame and controls how the driver is able to apply and release the brakes
- In essence, they work very similarly to how one would expect the brakes of lapped system to function, in that, you hold the brake handle in the apply or release position for as long as needed to achieve the desired brake force
- When moving the handle, you will see the outer needle on the brake gauge swing round, and wherever you release the handle is where the needle will stop - the brake needle itself will follow more slowly, depending on the brake timing as selected on the TMS

Couplings

- The BR Class 66 has 2 types of couplings on either end, a standard hook for coupling to wagons with a chain, and a buckeye coupler
- Most freight should be coupled to using the hook and chain method, to do this, you may need to swing the buckeye out of the way, there is a handle on the front of the locomotive to release and move it

TRAINING CENTER BR CLASS 323

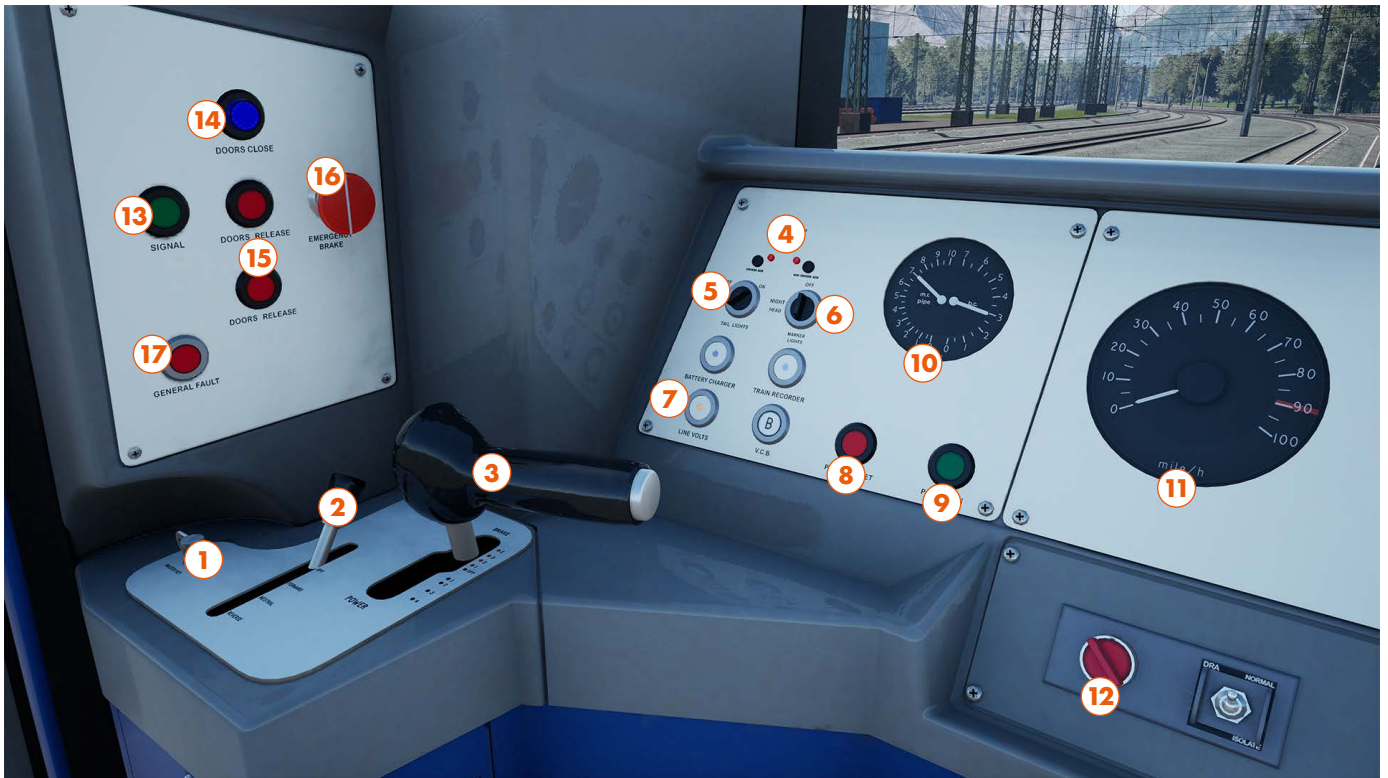


The Class 323 was built in the early 1990s to exclusively serve lines in the Midlands and the North of England. Designed by Hunslet in Birmingham, and constructed in Leeds, the Class 323 shares much of its characteristics with the Networker fleet, despite there being no relation. In fact, the unit has earned itself the unofficial nickname of “Hyper Networker” as its traction equipment operates in a very similar fashion, creating distinctive motor phasing sounds.

Split across 2 main regions in England, the Class 323 is often seen working West Midlands services around Birmingham, including on the Cross-City Line, as well as in Northern territory out of Manchester, serving the likes of the Glossop Line. Both of these are available in Train Sim World - so if you like the Class 323, you can pick up its local routes!

Manufacturer.....	Hunslet Transportation Projects
Build Location.....	Leeds, England
Build Date.....	1992-1995
Number Built.....	43 sets
Power Type (AC).....	25kV AC OHLE
Coaches.....	3 cars (2x DMS & 1x PTS)
Capacity.....	275 seats
Length.....	70.19 Metres (230 ft 3 in)
Weight.....	119.8 Metric Tons
Top Speed.....	90mph (145 km/h)

TRAINING CENTER BR CLASS 323 CAB - 1/4



1 - Master Key

2 - Reverser

3 - Power Brake Handle

4 - Headlight Indicators

5 - Tail Lights Switch

6 - Headlights/Marker Lights Switch

7 - Line Volts Indicator

8 - Pan Up/Reset Button

9 - Pan Down Button

10 - Brake Gauge

11 - Speedometer Gauge

12 - Driver's Reminder Appliance Switch

13 - Signal Buzzer Button

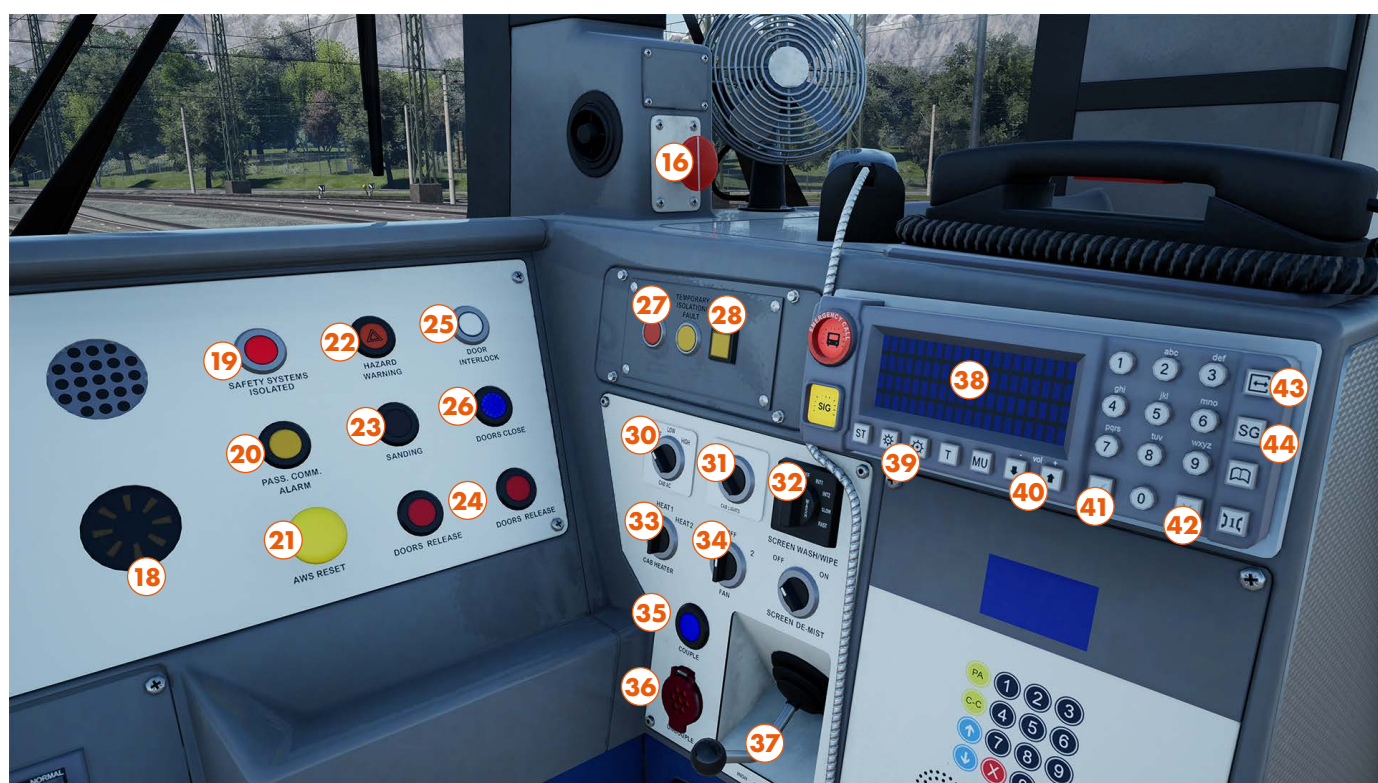
14 - Left Doors Close Button

15 - Left Doors Release Buttons

16 - Emergency Brake Plunger

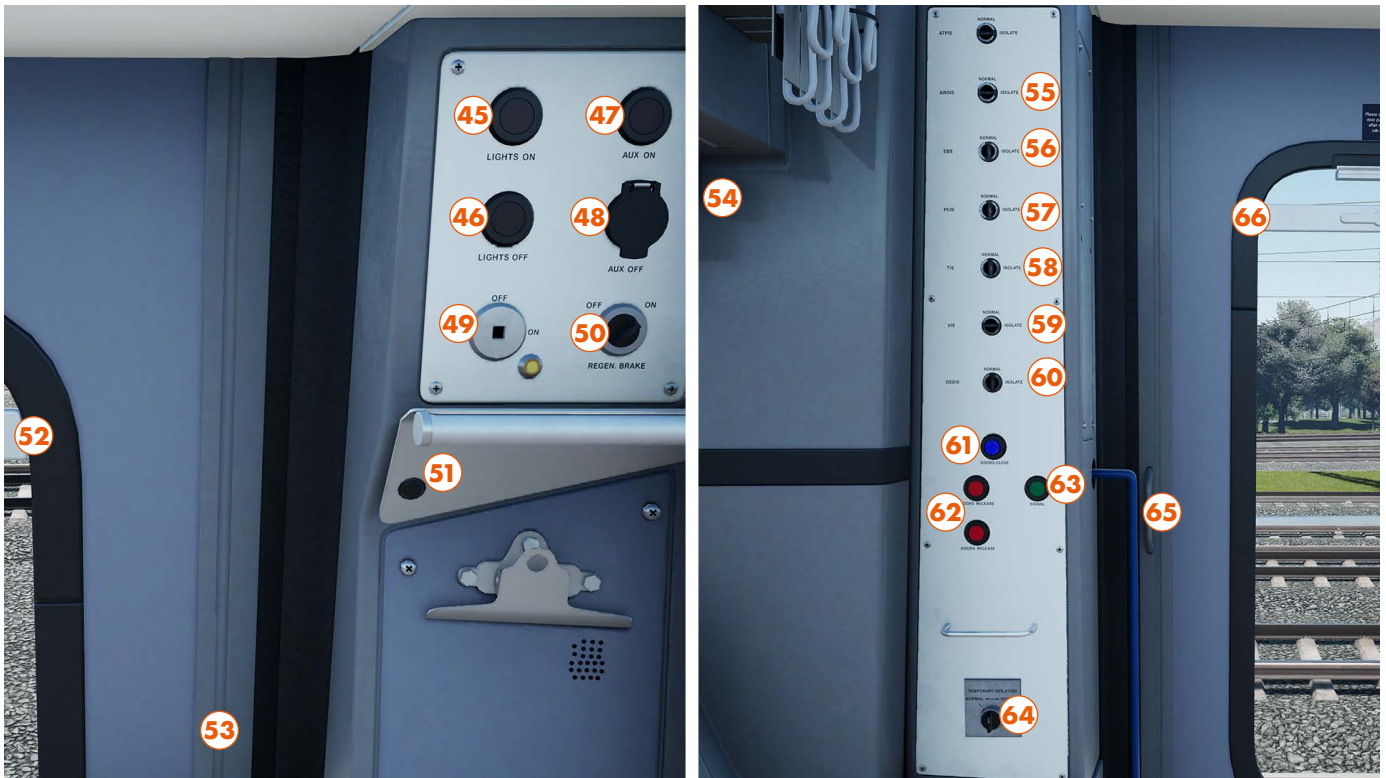
17 - General Fault Indicator

TRAINING CENTER BR CLASS 323 CAB - 2/4



- 18 - AWS Sunflower
- 19 - Safety Systems Isolated Indicator
- 20 - Pass Comm Alarm Override Button
- 21 - AWS Reset Button
- 22 - Hazard Warning Lights Button
- 23 - Sander Button
- 24 - Right Doors Release Buttons
- 25 - Door Interlock Indicator
- 26 - Right Doors Close Button
- 27 - TPWS Brake Demand Indicator
- 28 - TPWS Train Stop Override Button
- 29 - Left Side Blind (Off Screen)
- 30 - Cab Air Con Switch
- 31 - Cab Lights Switch
- 32 - Wiper Control Switch
- 33 - Cab Heater Switch
- 34 - Cab Fan Switch
- 35 - Couple Button
- 36 - Uncouple Button
- 37 - Two-Tone Horn Lever
- 38 - GSM-R Screen
- 39 - GSM-R Brightness Buttons
- 40 - GSM-R Volume Buttons
- 41 - GSM-R Confirm Button
- 42 - GSM-R Cancel Button
- 43 - GSM-R On/Off Button
- 44 - GSM-R Contact Signaller Button

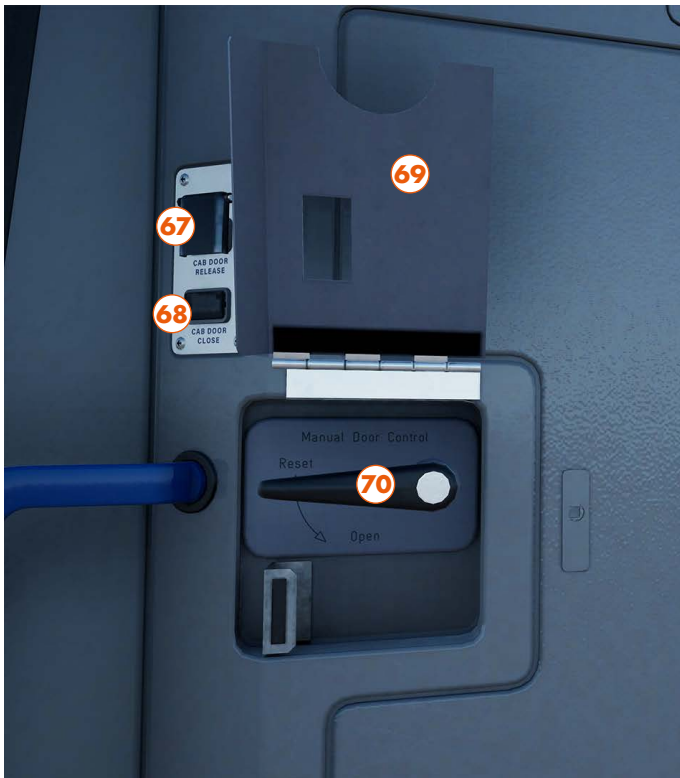
TRAINING CENTER BR CLASS 323 CAB - 3/4



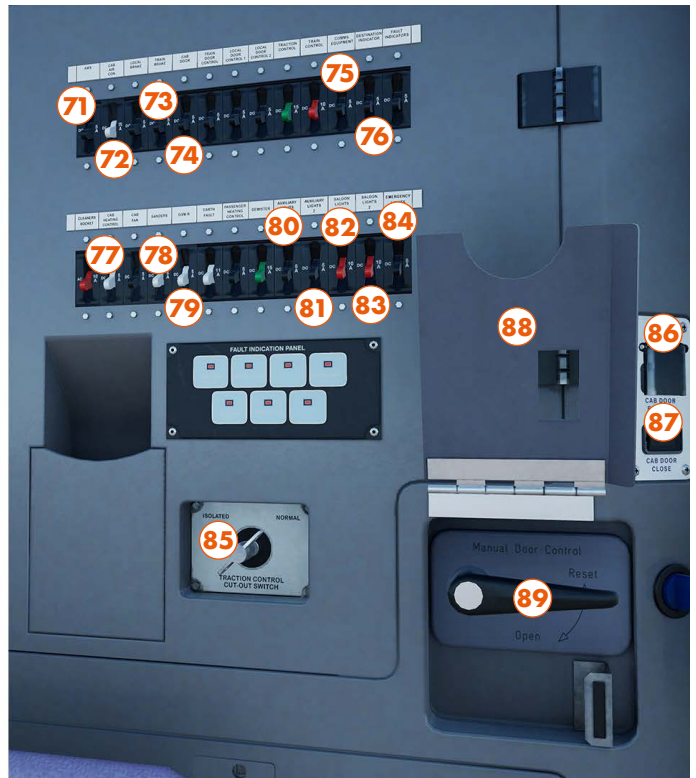
- 45 - Coach Lighting On Button
- 46 - Coach Lighting Off Button
- 47 - Aux On Button
- 48 - Aux Off Button
- 49 - Door Key
- 50 - Regen Brake Switch
- 51 - Clipboard Light Button
- 52 - Left Cab Window
- 53 - Left Cab Door

- 54 - Right Side Blind (Off Screen)
- 55 - AWS Isolation
- 56 - Emergency Bypass Isolation
- 57 - Pass Comm Isolation
- 58 - Traction Interlock Isolation
- 59 - Vigilance Isolation
- 60 - DSD Isolation
- 61 - Right Doors Close Button
- 62 - Right Doors Release Buttons
- 63 - Signal Buzzer Button
- 64 - TPWS Temporary Isolation Switch
- 65 - Right Cab Door
- 66 - Right Cab Window

TRAINING CENTER BR CLASS 323 CAB - 4/4



- 67 - Right Cab Door Release Button
- 68 - Right Cab Door Close Button
- 69 - Handle Cover
- 70 - Right Door Release Handle

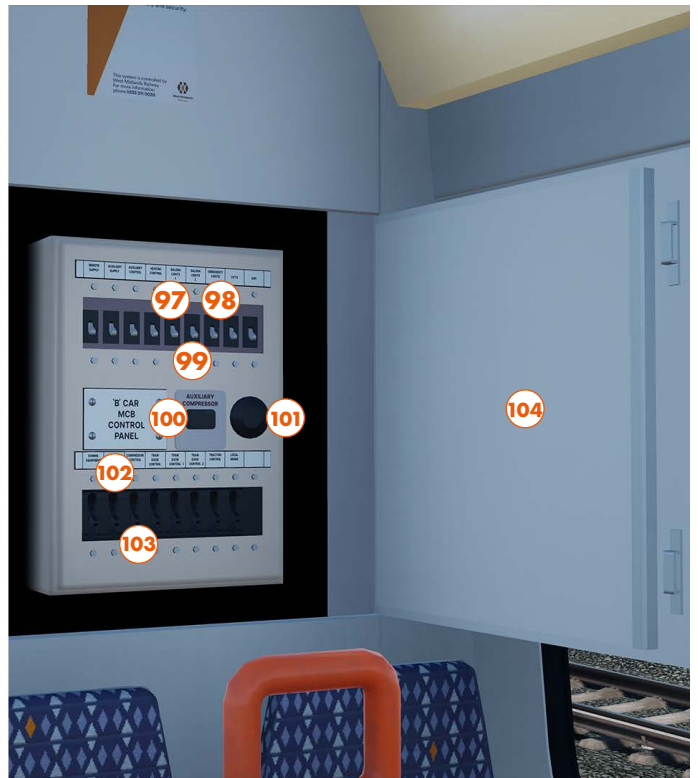


- 71 - AWS TPWS Fuse
- 72 - Cab Fan Fuse
- 73 - Train Brake Fuse
- 74 - Cab Door Fuse
- 75 - Radio Fuse
- 76 - Destination Display Fuse
- 77 - Cab Heater Fuse
- 78 - Sand Fuse
- 79 - GSM-R Fuse
- 80 - Auxiliary Lights 1 Fuse
- 81 - Auxiliary Lights 2 Fuse
- 82 - Saloon Lights 1 Fuse
- 83 - Saloon Lights 2 Fuse
- 84 - Emergency Lights Fuse
- 85 - Traction Cut-Out Switch
- 86 - Left Cab Door Release Button
- 87 - Left Cab Door Close Button
- 88 - Handle Cover
- 89 - Left Door Release Handle

TRAINING CENTER BR CLASS 323 - COACH B



- 90 - Local Door Release Button
- 91 - Door Release Button
- 92 - Door Key
- 93 - Door Close Button
- 94 - Local Door Close Button
- 95 - Signal Buzzer Button
- 96 - Guard Operating Panel Door



- 97 - Saloon Lights 1 Fuse
- 98 - Saloon Lights 2 Fuse
- 99 - Emergency Lights Fuse
- 100 - Auxiliary Compressor Button
- 101 - Pantograph Isolation
- 102 - Fault Indicators Fuse
- 103 - Remote Supply Fuse
- 104 - Cabinet Door

TRAINING CENTER BR CLASS 323 - PROCEDURES & UNIQUE FEATURES

Coupling

- As with a lot of multiple units, there are 2 components to the coupler on the Class 323, a physical and an electrical connection, and doing both is required to fully couple a pair of units
- Once you have fully drawn up to the train you wish to couple to and made physical contact, you must also press the Couple Button in the cab for a few seconds to make the electrical connection valid
- The same is true for uncoupling, the Uncouple Button must be pressed until you hear the electrical blocks disconnect, then take low power away from the train to physically uncouple

Emergency Brake Reset

- If you use the Emergency Brake either via the Plunger or Power Brake Handle, or by missing an alarm, let the train come to a complete stop, reset any controls or plungers and cancel any alarms before attempting to retake power
- If you encounter a TPWS brake demand, the red brake demand indicator will flash, move the Power Brake Handle into a brake step and press the AWS button to acknowledge this
- You must then wait 60 seconds after the train has stopped for the brakes to release
- If the brakes do not release, you can move the Reverser into Off and back into the intended direction

Other Bits & Bobs

- The BR Class 323 is equipped with a GSM-R display in timetable services this has the ability to display the current service's headcode - you can see this if you own Cross-City or Glossop Line
- The guard's panel controls are interactive, however the best use of this, should you wish to try it, is in the On Guard scenario within Glossop Line
- Using the controls in Coach B, you can isolate a train by forcibly lowering its pantograph, open the Cabinet Door in Coach B and turn the Pantograph Isolation Key, this unit can now be dragged "dead" by another unit

TRAINING CENTER 8F STEAM LOCOMOTIVE



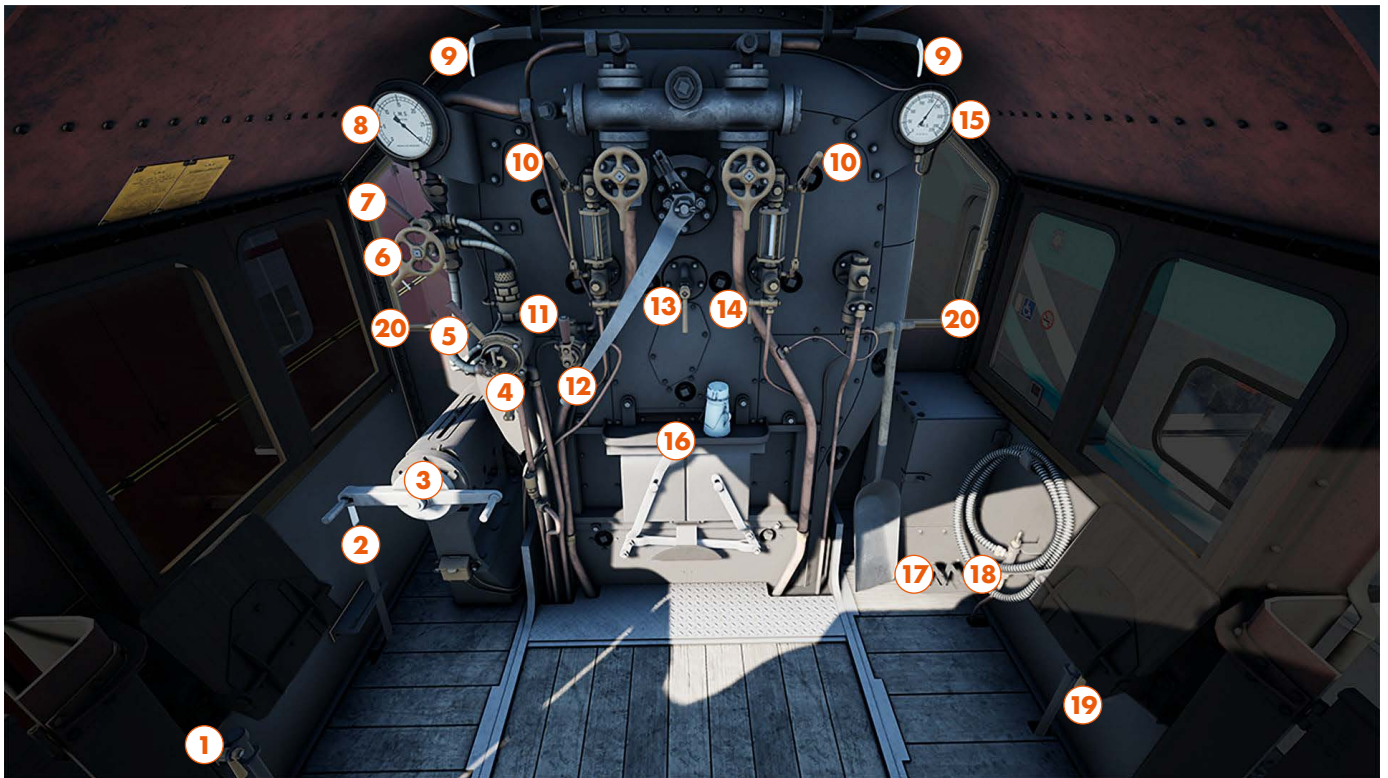
A freight-orientated derivative of the famed Black 5, the Stanier Class 8F filled a gap in the LMS fleet from its introduction in 1935, quickly proving itself as a capable hauler, its 2-8-0 wheel layout and smaller-diameter driving wheels trading speed for incredible hauling capacity. It didn't take long for the first few dozen locos to roll out of Crewe Works, however, the 8F would quickly see a rise in production rate, after being chosen as the standard locomotive design to aid in the Second World War.

Construction of additional locomotives began across the country, with LNER and Southern tools being put to use building LMS metalwork. Batches of 8Fs were also destined for overseas use, and by the time production ceased, 852 of the locos had been built. Preservation of the class is few and far between, but a small handful of examples remain, although as of 2023, only one is operational.

The 8F's stature makes it a solid steam loco to learn the ropes on, and if this freight legend takes your fancy, you can experience it in duofold historic fashion, available in both Liverpool-Crewe and Peak Forest!

Manufacturer.....	London Midland Scottish Railway
Build Location.....	Multiple in England and Scotland
Build Date.....	1935-1946
Number Built.....	852 locos
Whyte Notation.....	2-8-0
Cylinders.....	Two, outside
Fuel.....	9.1 Tons of Coal
Water Capacity.....	18000 Litres
Tractive Effort.....	32440 lbf (144.30 kN)
Length.....	19.22 Metres (63 ft)
Weight.....	73.26 Metric Tons
Top Speed.....	100mph (160 km/h)

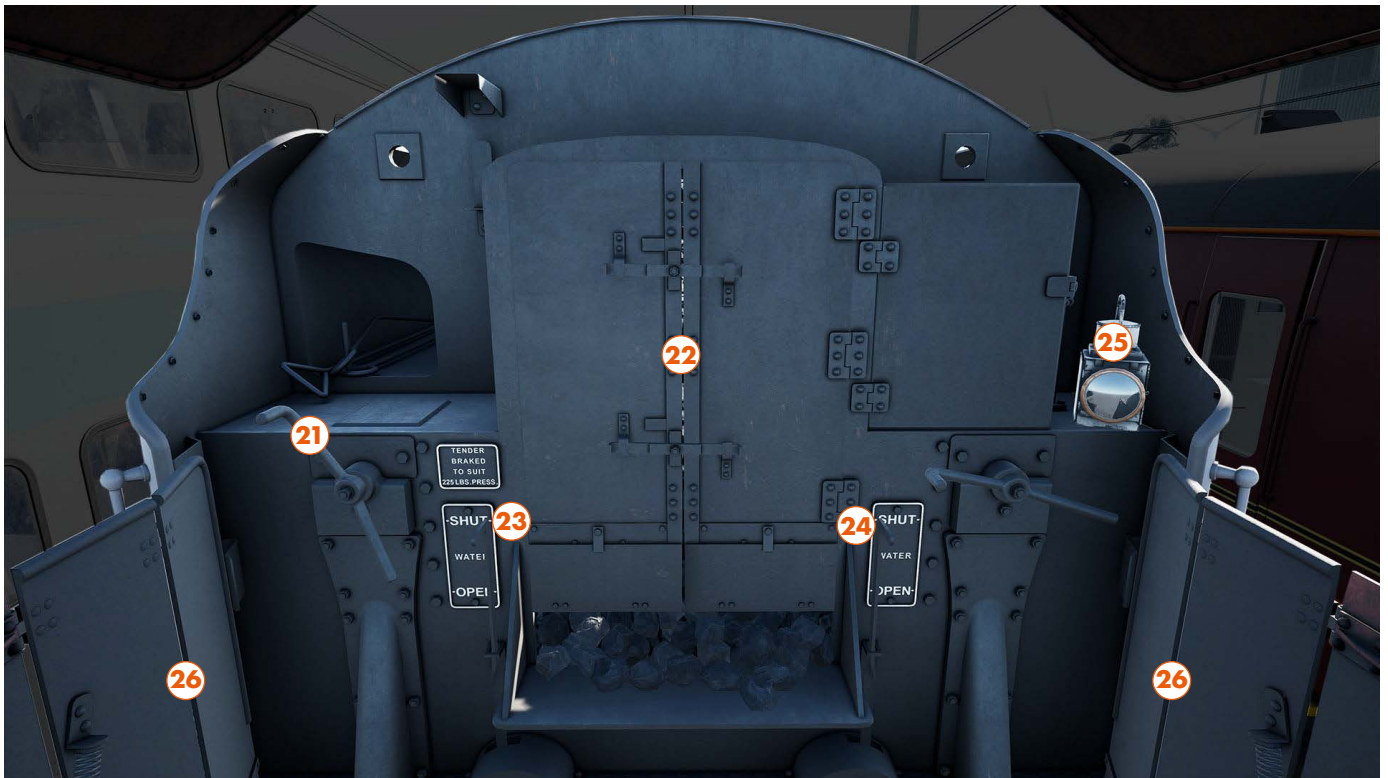
TRAINING CENTER 8F FOOTPLATE - 1/2



- 1 - Live Injector Trim Valve
- 2 - Cylinder Cocks Lever
- 3 - Reverser
- 4 - Steam Brake Handle
- 5 - Combination Brake Handle
- 6 - Large Ejector
- 7 - Small Ejector
- 8 - Vacuum Brake Gauge
- 9 - Whistle
- 10 - Gauge Glass Isolating Cock

- 11 - Sander
- 12 - Regulator
- 13 - Blower
- 14 - Gauge Glass Drain
- 15 - Steam Pressure Gauge
- 16 - Firebox Door
- 17 - Rear Damper
- 18 - Front Damper
- 19 - Exhaust Injector Trim Valve
- 20 - Opening Front Windows

TRAINING CENTER 8F FOOTPLATE - 2/2



- 21 - Handbrake
- 22 - Coal Door
- 23 - Exhaust Ejector Water Valve
- 24 - Live Ejector Water Valve
- 25 - Cab Lamp
- 26 - Footplate Access Doors

TRAINING CENTER 8F - PROCEDURES & UNIQUE FEATURES

Firing

- Steam locomotives in Train Sim World have 3 modes of firing, offering multiple levels of assistance
- Automatic firing means the AI fireman will be opening and closing the firebox, dampers and blower, and water injectors by itself, this is the recommended mode for most players
- Assisted firing will handle the injectors, dampers and blower, but the player must open the firebox to allow the AI fireman to put coal in
- Manual firing leaves all the dampers, blower and firebox timing upto the player, the AI fireman will still be in control of the injectors and shovelling coal

How to gain speed

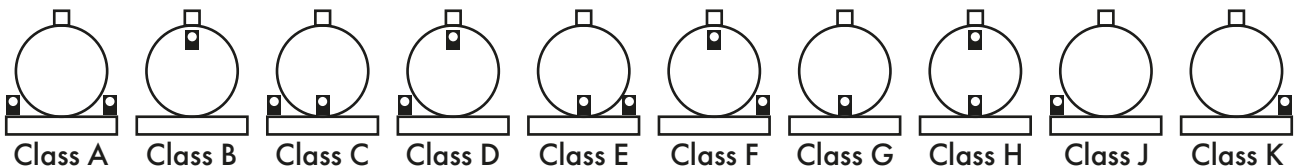
- Driving a steam locomotive is not like a diesel or electric, you must be patient and work with, not against the locomotive in order to get it moving and upto speed
- Much like gears in a car, you should start with the Reverser fully in the direction of travel, and only apply gradual amounts of power with the Regulator
- As you gain speed, slowly wind back the Reverser as you apply more power through the Regulator, you can wind it all the way back to the mid 20% range at the higher speeds, while aiming for 80-100% of regulator
- Your main goal should be to maximise acceleration, while maintaining boiler pressure, excessive loss of pressure will result in a stalled train, meaning you have to wait for it to rebuild before moving again
- Remember to have the Cylinder Cocks open while stationary, and remember to close them shortly after departing, they are key in ejecting water out of the cylinders which could otherwise cause damage

Braking

- Steam locomotives most often have manually lapped vacuum brakes; what this means is you need to apply as much braking pressure as you need, and then attempt to maintain or alter that by using the handle to constantly apply and release, in combination with the Large Ejector

Headcodes

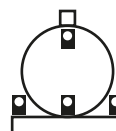
- Steam locomotives do not have headlight controls, instead, they use a series of manually placed head lamps on the front or rear of the loco, and each configuration has a specific meaning



- A - Express Passenger
- B - Stopping Passenger
- C - Parcels, fish/livestock/perishables
- D - Express freight or livestock, at least 30% fitted
- E - Express freight with at least 4 fitted vehicles at front
- F - Express freight, all unfitted stock
- G - Light engine, or engine with 1 or 2 brake vans
- H - Through freight or ballast train
- J - Through mineral or empty wagon train
- K - Pickup/branch freight or short-haul mineral/ballast

Fitted/unfitted refers to the wagons, as not all wagons in the steam era were equipped with brakes.

Lastly, there is one more headcode a loco can display, all 4 lamps indicates a train as the highest priority, the Royal Train.



S-BAHN VORARLBERG

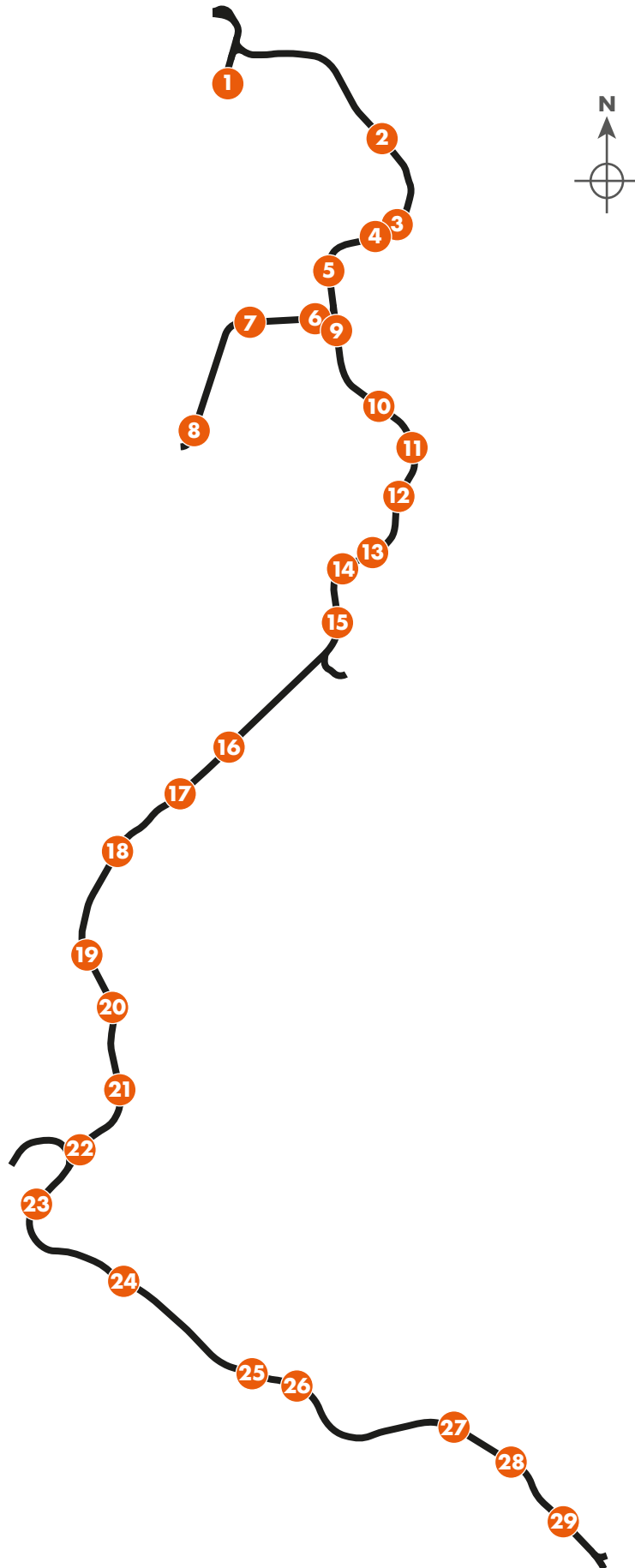


Welcome to Train Sim World's first (but not only) foray into Austria! S-Bahn Vorarlberg covers the x-km passenger network on the Western tip of Austria. Starting in the south is Bludenz, a town nestled by Alpine peaks, the valleys of which the line follows north via Feldkirch and Lauterach, where the line to Lustenau branches off from a triangle junction. Continuing north, and now hugging the banks of the Upper Lake Constance, the line curves around via Bregenz, and over the nondescript border into Germany, where with one final turn, it terminates on the island of Lindau.

S-Bahn Vorarlberg Bits & Bobs

- Look out for the border crossing! It's quite subtle, on one side of a bridge you will see German OHLE gantries, and Austrian on the other, there will also be changes to overall signalling and infrastructure.
- Stunning mountains galore! Using new terrain tech which applies mountainous materials and textures to LIDAR terrain data, the Alps are an awe-inspiring and towering backdrop to the route.
- There are many route tasks to complete, with route maps to place, hats to find, chocolate bars to eat and snow poles to fix.

S-BAHN VORARLBERG ROUTE MAP



- 1 - Lindau Hbf
- 2 - Lochau-Hörbranz
- 3 - Bregenz Hafen
- 4 - Bregenz
- 5 - Riedenburg
- 6 - Lauterach Unterfeld
- 7 - Hard-Fussach
- 8 - Lustenau
- 9 - Lauterach
- 10 - Wolfurt
- 11 - Schwarzach in Vorarlberg
- 12 - Haselstauden (Dornbirn)
- 13 - Dornbirn
- 14 - Dornbirn Schoren
- 15 - Dornbirn Hatlerdorf
- 16 - Hohenems
- 17 - Altach
- 18 - Götzis
- 19 - Klaus in Vorarlberg
- 20 - Sulz-Röthis
- 21 - Rankweil
- 22 - Feldkirch Amberg
- 23 - Feldkirch
- 24 - Frastanz
- 25 - Schlins-Beschling
- 26 - Nenzing
- 27 - Ludesch
- 28 - Nüziders
- 29 - Bludenz

ÖBB 4024



A staple on Austrian networks since the late 1990s, the ÖBB 4024 with its striking frontend and sleek curved body design was the first iteration of the Talent family of multiple units. Available as both diesel and electric options, Austria's national operator selected electric sets for use on local and S-Bahn traffic.

Featuring a low floor for accessibility, and improved safety and ride comfort being straddled atop shared Jacobs bogies, the 4024 is a perfectly capable EMU with the added ability of being able to also work in Germany's borders, making it suitable for use on the Vorarlberg network.

Manufacturer.....	Bombardier Talbot
Build Location.....	Aachen, Germany
Entered Service.....	1996
Number Built.....	188 sets (All ÖBB Talents)
Power Type.....	15kV AC OHLE
Power Output.....	2040 horsepower
Coaches.....	4-car
Capacity.....	189 Passengers
Length.....	66.87 Metres (219.39 ft)
Weight.....	116 Metric Tons
Top Speed.....	140 km/h (87 mph)

ÖBB 4024 CAB - 1/2



- | | |
|--|---|
| 1 - Contact Signaller Phone (off screen) | 19 - Parking Brake Apply & Release Buttons |
| 2 - Emergency Brake Plunger | 20 - Speedometer |
| 3 - Pantograph Switch | 21 - Brake Pressure Gauge |
| 4 - Main Circuit Breaker Switch | 22 - Brake Cylinder Gauge |
| 5 - Traction Motor Blowers Switch | 23 - Sander Switch |
| 6 - PZB Override Switch | 24 - Wipers Switch |
| 7 - PZB Release Switch | 25 - Master Controller Handle |
| 8 - PZB Acknowledge Switch | 26 - Sander Button |
| 9 - Master Switch | 27 - High Horn Button |
| 10 - Reverser Switch | 28 - Low Horn Button |
| 11 - Door Locking Switch | 29 - Cruise Control Switch |
| 12 - Close All Doors Button | 30 - Signal Lights Switch |
| 13 - PZB Indicator Brightness Switch | 31 - Train Brake Handle |
| 14 - Desk Light Dimmer | 32 - Cruise Control Up/Down Buttons |
| 15 - Cab/Desk Light Switch | 33 - Multi-Function Display Brightness Button |
| 16 - Train Lights Switch | 34 - SIFA Pedal (off screen) |
| 17 - Instrument Lights Switch | 35 - Horn Pedal (off screen) |
| 18 - Instrument Lights Dimmer | |

ÖBB 4024 CAB - 2/2



- 36 - Battery Voltage Indicator
- 37 - Battery Switch
- 38 - Signal Lights Switch
- 39 - ÖBB/DB Mode Switch
- 40 - Signal Lights Direct Switch
- 41 - PZB Breaker Switch
- 42 - SIFA Breaker Switch

ÖBB 4024 - PROCEDURES & UNIQUE FEATURES

Cab Setup

- On top of the usual procedures for getting a train moving, the ÖBB 4024 has an additional step where you must insert the Train Brake Handle, as well as the usual Master Key
- Once you have inserted the Train Brake Handle, you need to move it into the Drive position

Cruise Control

- Unlike AFB as commonly found on German rolling stock, the Cruise Control functionality in the ÖBB 4024 is a little bit different both in how it operates, and in how you enable it
- To enable Cruise Control in the ÖBB 4024, first you must already be moving, and when you reach your desired target speed, move the Cruise Control switch into the On position, this will hold you at the exact speed you were at when you pressed it
- Once in Cruise Control, you can select a different desired speed on the Train Management Screen (TMS), do this by pressing the 7 and 8 softkeys to select speed up or down in 5 km/h increments
- This is not a press and hold function, you will need to press the buttons every 5 km/h you wish to change the speed by
- To disable Cruise Control, move the Master Controller into the 0 position, and switch the Cruise Control switch to Off
- Returning the Master Controller to 0 and either re-applying power or braking will also disable Cruise Control, in which case you will need to move the switch to Off and back to On when ready to use it again

Coupling and Uncoupling

- Coupling is straightforward in the ÖBB 4024, to couple to another unit, simply attach to it at a safe speed, driving from the cab nearest to the other unit
- To uncouple from another unit, be in the middle cab facing it, and then with the train in reverse, turn the Master Key fully to the left into the Uncouple mode and hold it there for 5 seconds, before returning it to Active
- Apply some power and slowly pull away from the uncoupled unit

Other Bits and Bobs

- Unlike a lot of trains, the ÖBB 4024 does not feature an external cab door - you can access the train by opening any set of passenger doors from the outside, they will close themselves automatically after 10 seconds

DB BR 185.2

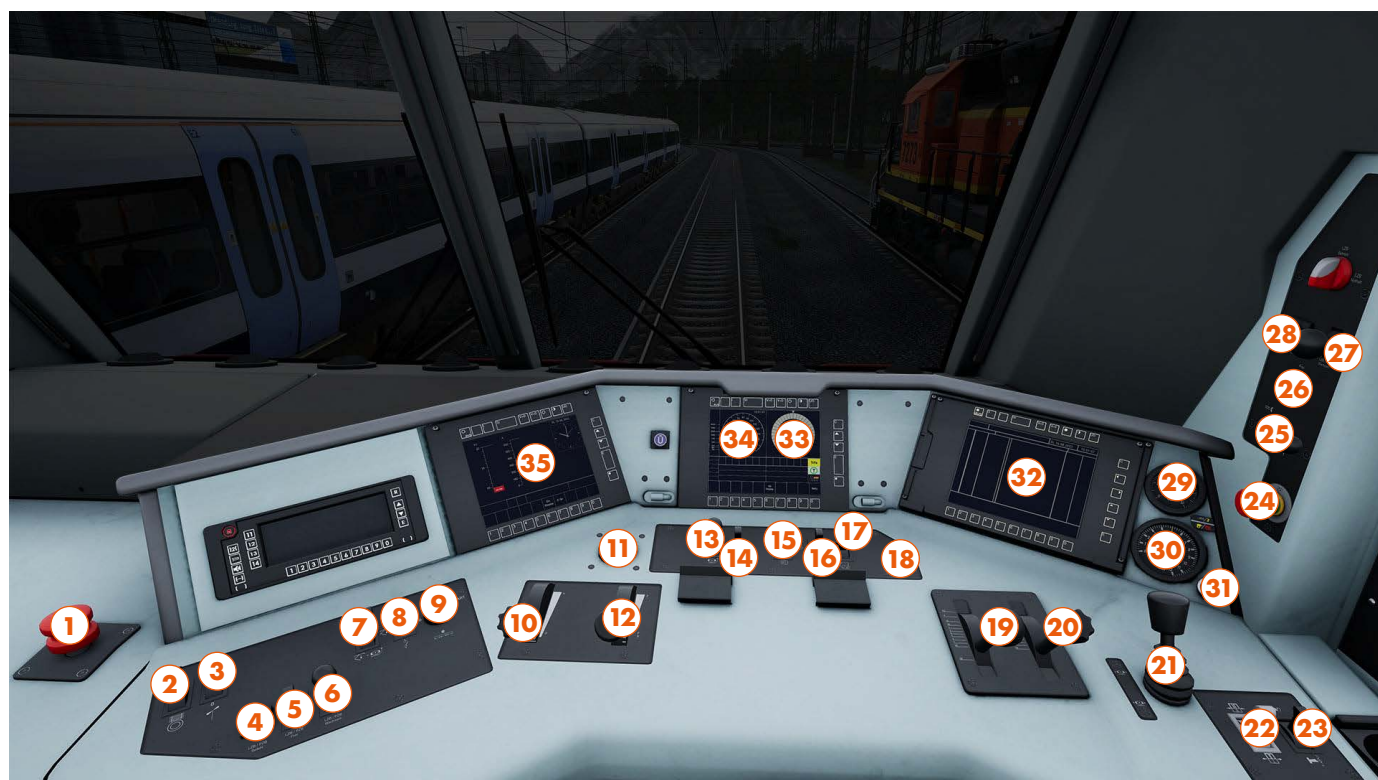


As part of the TRAXX family, the DB BR 185 is one of Germany's prime freight locomotives, used throughout the country to haul all manner of goods. Hundreds have been built since the order was first placed in the late 1990s, making them a common sight. DB operate a substantial fleet of locos, with many still carrying the DB Railion brand, a name for DB Cargo which dates back to the turn of the century, 2000.

Of that fleet, many are of the F140 AC2 variant (one of many available as part of the family) offering powerful cross-border capabilities for all manners of freight operations. This subset of locomotive was more specifically classified as the BR 185.2, and is a frequent sight across Europe, as are TRAXX's as a whole.

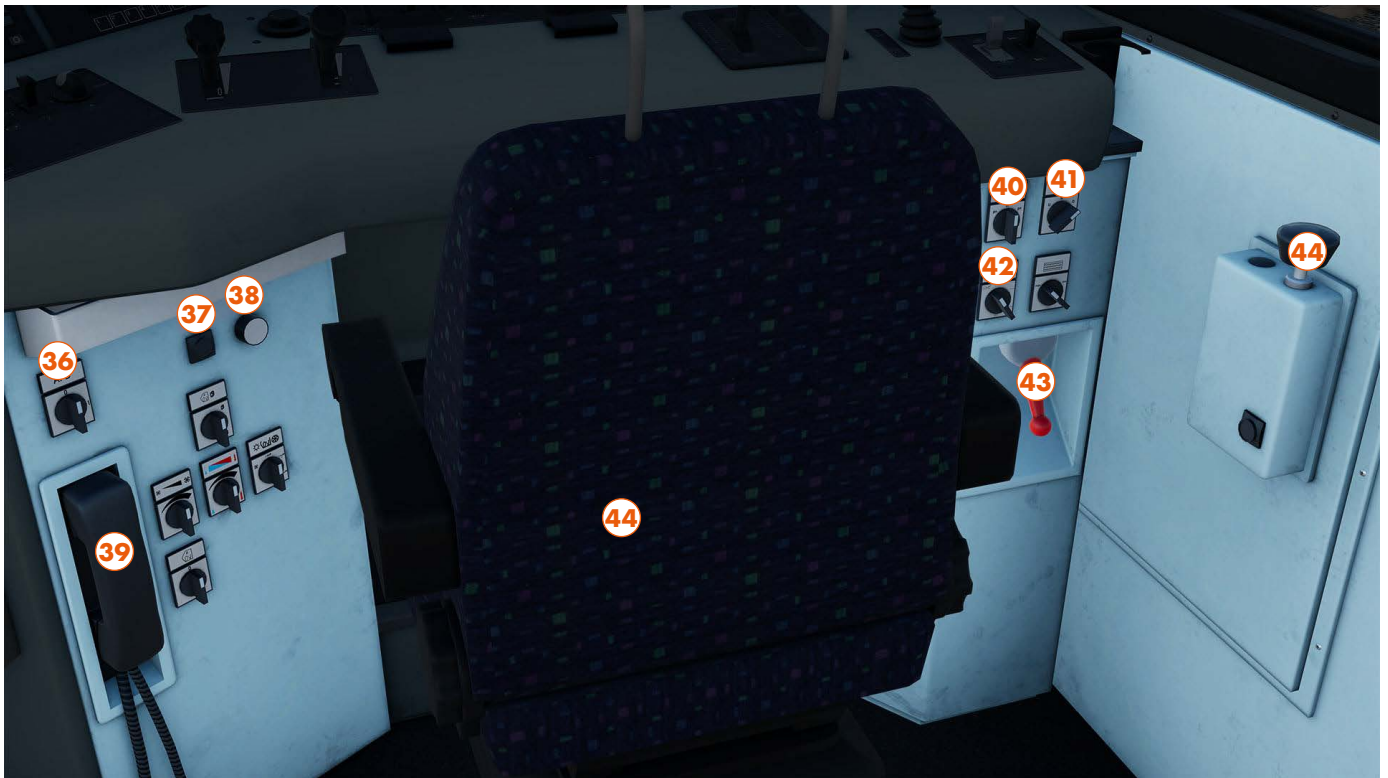
Manufacturer.....	Bombardier Alstom
Build Location.....	Kassel, Germany
Build Date.....	1999-2006
Number Built.....	200 locos
Power Type.....	15kV AC OHLE
Variant.....	TRAXX F140 AC2
Power Output.....	7500 horsepower
Length.....	18.9 Metres (62 ft)
Weight.....	84 Metric Tons
Top Speed.....	140km/h (87mph)

BR 185.2 CAB - 1/3



- | | |
|--|---|
| 1 - Emergency Brake Button | 19 - Train Brake Handle |
| 2 - Air Compressor Switch | 20 - Electric Brake Handle |
| 3 - Traction Motor Fan Switch | 21 - Direct Brake Handle |
| 4 - LZB/PZB Override Button | 22 - Passenger Doors Switch |
| 5 - LZB/PZB Release Switch | 23 - Horn Lever |
| 6 - LZB/PZB Acknowledge Switch | 24 - Emergency Pantograph Button |
| 7 - Pantograph Switch | 25 - Shunting Control Switch |
| 8 - Main Circuit Breaker Switch | 26 - LZB/PZB Release Switch |
| 9 - Train Line Power Switch | 27 - LZB/PZB Acknowledge Switch |
| 10 - AFB Speed Handle | 28 - LZB/PZB Override Button |
| 11 - Reverser Handle | 29 - Direct Brake Gauge |
| 12 - Throttle Handle | 30 - Train Brake Gauge |
| 13 - Sand Switch | 31 - Brake Overcharge Button |
| 14 - Brake Release Switch | 32 - Right Multi-Function Display |
| 15 - Headlights Switch | 33 - Multi-Function Display (Tractive Effort) |
| 16 - Master & Instrument Lights Switch | 34 - Multi-Function Display (Speedometer) |
| 17 - Cab Lights Switch | 35 - Left Multi-Function Display |
| 18 - High Beam Indicator Button | |

BR 185.2 CAB - 2/3



- 36 - AFB Switch
- 37 - Console Lights Button
- 38 - Console Light Dimmer Dial
- 39 - Contact Signaller Phone
- 40 - en/pl Switch
- 41 - PZB Mode Switch
- 42 - Wiper Switch
- 43 - Emergency Brake Valve Handle
- 44 - SIFA Reset (foot pedal behind seat)

BR 185.2 CAB - 3/3



- 45 - LZB Breaker Switch
- 46 - PZB Breaker Switch
- 47 - SIFA Breaker Switch
- 48 - Signal Lights Switch
- 49 - Parking Brake Apply Button
- 50 - Parking Brake Release Button
- 51 - Battery Button
- 52 - Brake Selector Switch
- 53 - Pantograph Selector Switch
- 54 - Driver's Brake Valve Button
- 55 - NBÜ/EP Switch

DB BR 185.2 - PROCEDURES & UNIQUE FEATURES

Light Setup

- As can be common on a lot of German locomotives, the DB BR 185's headlight setup has an additional switch on the back wall which determines what state the lights should be in, the controls on the front of the desk merely control modes such as brightness
- There is also the Master and Instrument Lights switch, this controls all lighting on the whole locomotive, so must be set to On in order for any headlight settings to function

Brake Controls

- The DB BR 185 features 3 handles on the driver's desk, the 2 that are side by side are the Train Brake and Electric Brake
- When you want to decelerate, but not stop the train, you can use the Electric Brake independently, this will be able to efficiently reduce speed, but such brakes are not designed to stop the train
- Should you need to stop, you should use the Train Brake, this is interlocked with the Electric Brake to provided a blended braking action, so you will see both handles move in unison
- The rightmost handle is the Direct Brake, this only applies brakes on the locomotive and should only be used in light loco situations
- The Direct Brake is a lapped brake, meaning you must hold it in the apply or release position to change brake force, and hold it in the middle to maintain that force - it is not a sprung brake, you must move it in all directions manually

Changing PZB Mode

- Make sure that the locomotive is stationary, PZB is not in restrictive mode and the penalty brake is not applied
- Set the desired PZB Mode by moving the PZB Mode Switch to "U", "M" or "O"
- If the total BrH (braked weight percentage) is less than or equal to 65, set the PZB Mode to "U", if the BrH exceeds 65 but is less than 111, set the PZB Mode to "M", otherwise set the PZB Mode to "O"
- In Timetable Mode, the correct PZB Mode for your train should be automatically selected

Setting AFB - Stationary

- Enabling AFB while stationary is straightforward
- Turn on AFB using the AFB Switch, the loco will acknowledge this with an audible alert
- Use the AFB Speed Handle to select what speed you want to maintain, and set enough throttle to reach and maintain it
- While on the move, simply move the handle to a new speed and AFB will follow if enough throttle is applied, although it is best practice to not rely on it for braking, you should set the throttle to 0 and use manual braking

Setting AFB - On the Move

- While on the move, set the Throttle to 0 so no power is being applied
- Move the AFB Speed Handle all the way to maximum speed
- Turn on AFB using the AFB Switch, the loco will acknowledge this with an audible alert
- Use the AFB Speed Handle to select what speed you want to maintain, and reapply enough power to maintain it

ANTELOPE VALLEY LINE

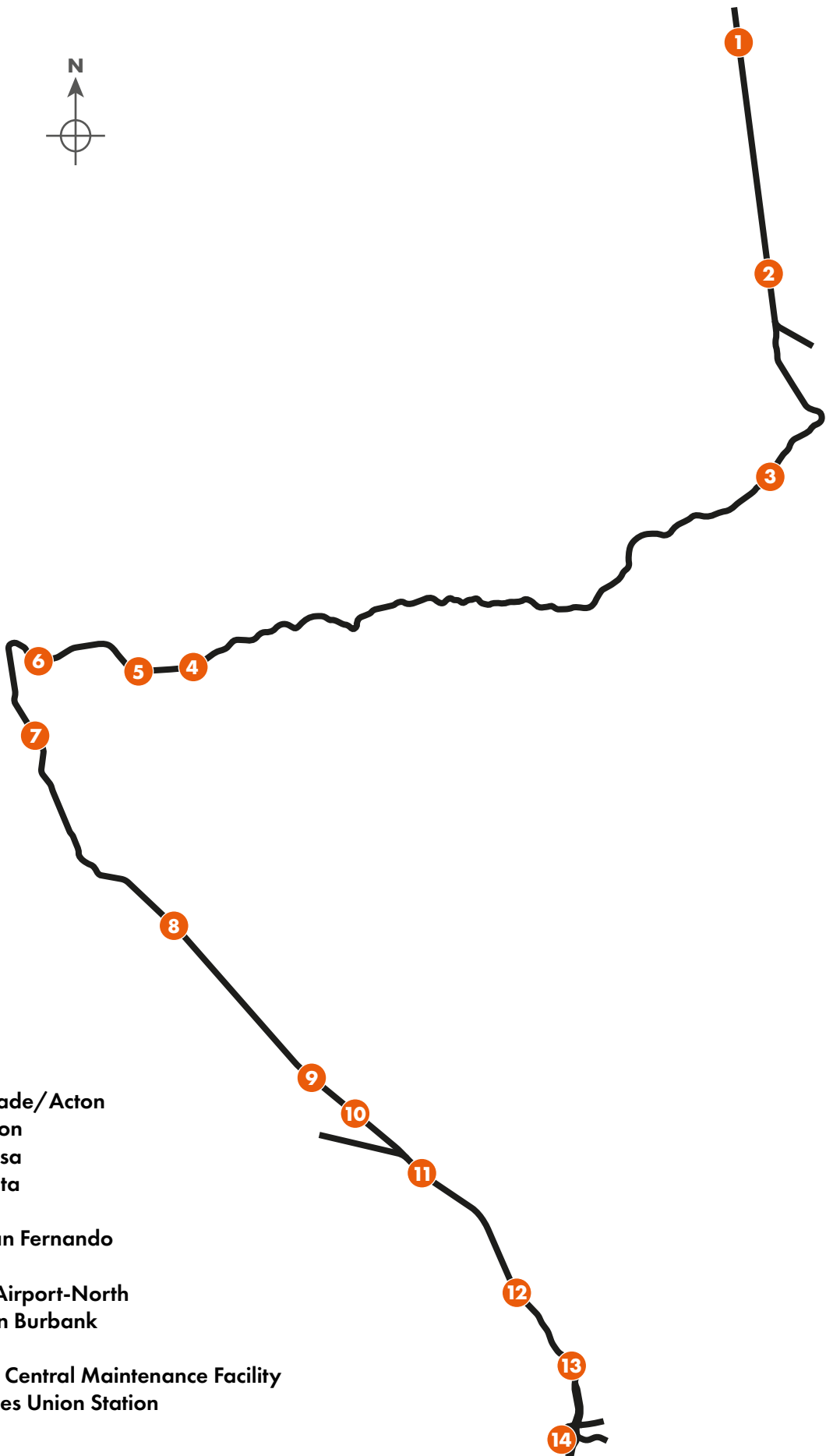


Welcome to the sunny state of California! The City of Los Angeles awaits in Train Sim World as you embark on modern Metrolink services along their 74-mile Antelope Valley Line. The city's massive Union station marks the start of the journey, S-bending around the bustling city and heading northbound along the famed storm drains. Beyond Burbank airport and up to Santa Clarita, the rails turn sharply due East, and begin the slalom through rugged desert valleys, climbing and descending before the line once again straightens out for the final northerly stretch between Palmdale and Lancaster.

Antelope Valley Line Bits & Bobs

- Much like Vorarlberg, the canyons and desert valleys of California are also captured in stunning detail thanks to detailed textures within the LIDAR terrain system, it makes this route a real looker!
- Don't forget Rule 14L, the horn sequence when approaching a Grade Crossing; as you approach, start ringing the Bell, then do a Long-Long-Short-Long toot of the Horn, finishing as you cross over the road.
- Unlike most American trains on mountain passes, this is a short passenger formation, but still be vigilant and don't lose your cool on the downhill stretches - you have unique blended braking at your disposal.
- There are many route tasks to complete, with route maps to place, anniversary banners to put up, cowboy hats to find and food trucks to visit.

ANTELOPE VALLEY LINE ROUTE MAP



- 1 - Lancaster
- 2 - Palmdale
- 3 - Vincent Grade/Acton
- 4 - Vista Canyon
- 5 - Via Princessa
- 6 - Santa Clarita
- 7 - Newhall
- 8 - Sylmar/San Fernando
- 9 - Sun Valley
- 10 - Burbank Airport-North
- 11 - Downtown Burbank
- 12 - Glendale
- 13 - Metrolink Central Maintenance Facility
- 14 - Los Angeles Union Station

METROLINK F125 "SPIRIT"

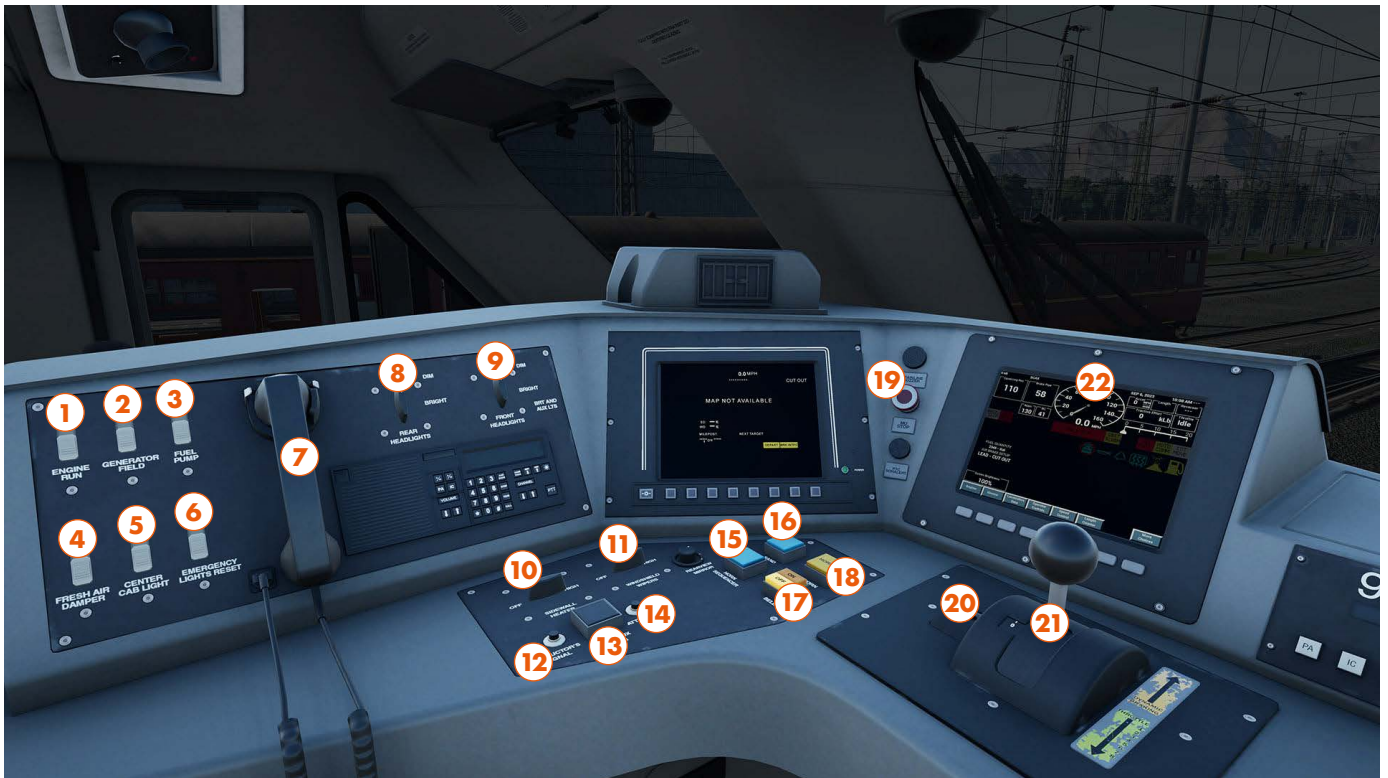


Being the first new passenger locomotive of its kind to enter service in recent history, the F125 marks the pinnacle of diesel developments for use on commuter networks in the United States. Capable of operating at 100mph, with options to be re-gearred for 125, all while meeting crucial Tier 4 emissions standards, this fleet would eventually prove a worthy replacement for ageing diesels for the sprawling Los Angeles network.

Ordered by Metrolink in 2013, and entering service just a few years later, the fleet of 40 locomotives now serve as the striking flagship on services out into the rugged Californian terrain, operating multiple daily services with ease on the challenging and scenic Antelope Valley Line. Fixed to Rotem car equipment, the F125 leads the northbound leg, while return journeys are pushed along, F125 powering from the rear.

Manufacturer.....	Electro-Motive Diesel
Build Location.....	Indiana, USA
Build Date.....	2015-2021
Number Built.....	40 locos
Engine Type.....	Four-stroke V20 diesel
Prime Mover.....	Caterpillar C175-20
Traction Motors.....	EMD AC A2921-5
Power Output.....	4560 horsepower
Length.....	69 ft (21 Metres)
Weight.....	278 Metric Tons
Top Speed.....	100mph (160 km/h)

METROLINK F125 "SPIRIT" CAB - 1 / 3



- | | |
|-----------------------------------|---|
| 1 - Engine Run Switch | 12 - Conductor's Signal Button |
| 2 - Generator Field Switch | 13 - Auxiliary Pulse Lights Button |
| 3 - Fuel Pump Switch | 14 - Attendant Call Button |
| 4 - Fresh Air Damper Switch | 15 - Horn Sequencer Button |
| 5 - Center Cab Light Switch | 16 - Sander Button |
| 6 - Emergency Light Reset Switch | 17 - Bell Button |
| 7 - Contact Signaller Phone | 18 - Horn Button |
| 8 - Rear Headlights Switch | 19 - Multiple Unit Engine Stop Button |
| 9 - Front Headlights Switch | 20 - Reverser Handle |
| 10 - Engineer's Cab Heater Switch | 21 - Master Controller Handle |
| 11 - Windshield Wipers Switch | 22 - Multi-Function Display (speedometer) |

METROLINK F125 "SPIRIT" CAB - 2/3



- 23 - Automatic Brake Handle
- 24 - EQ Regulator Switch
- 25 - Brake Mode Switch
- 26 - Independent Brake Handle
- 27 - Alerter Button
- 28 - ATS Acknowledge Button

METROLINK F125 "SPIRIT" CAB - 3/3



- 29 - Car Body Lights Switch
- 30 - Number Board Lights Switch
- 31 - Step Lights Switch
- 32 - Front Marker Lights Switch
- 33 - Rear Marker Lights Switch
- 34 - Dynamic Brake Cut-Out Switch
- 35 - Car Door Override Switch
- 36 - Horn Backup Switch
- 37 - Door Light Multiple Unit Switch
- 38 - Engine Isolation Switch
- 39 - Engine Start Button
- 40 - Emergency Fuel Cut-Off/Engine Stop Button
- 41 - EFCO Reset Button
- 42 - Layover Switch
- 43 - HEP (Head End Power) Distribution Switch
- 44 - 480 Power Source Switch
- 45 - HEP Meters Switch
- 46 - HEP On Button
- 47 - HEP Off Button

METROLINK F125 "SPIRIT" - PROCEDURES & UNIQUE FEATURES

Cab Setup

- On top of the usual controls required to move a train, the F125 has additional switches which are common among US locomotives (both freight and passenger)
- In order to take power in the F125, you must ensure that the Generator Field switch is set to On
- You must also make sure that the Automatic Brakes are cut-in, as otherwise moving the brake lever will have no effect, do this by setting the Brake Mode to Passenger

Rollback Prevention

- Due to the intensive, hilly nature of the Metrolink network, the F125 features automatic Rollback Prevention, this is designed to make sure that your train does not run away from you in the event that brakes are released before power is applied, and you begin to roll down a hill in an unintended direction
- Rollback Prevention automatically applies if you roll against the direction of travel above 4.3mph, and full dynamic brake will bring your speed back down to 2.5mph, by which point you should be able to prevent the rollback yourself by reapplying the Automatic Brake
- In the event you are going downhill, and happen to set the train in Reverse, the Rollback Prevention will also keep you from rolling forwards too much, but it is not designed to prevent rolling in general, so it is always best practice to apply power before releasing the brakes

Brake Controls

- The F125 features both Air and Dynamic brakes, this is common for most modern US locomotives, but the way they are implemented here differs
- The Dynamic Brake is applied using the Master Controller, moving it away from the power positions you will enter dynamic braking, this allows for speed control and correction, as well as overall reduction, but dynamic brakes are not designed to stop a train
- The Air Brake is applied using the Automatic Brake handle, this will apply air brakes on every vehicle in the formation, but unlike most trains, it will also blend in the Dynamic Brake to make the process of braking more efficient and to reduce wear and tear on the brake pads
- You can use the Dynamic Brake Cut-Out switch on the back wall to limit the train to only using Air Brakes, but keep in mind this will also make them inoperable with the Master Controller

METROLINK ROTEM CONTROL TRAILER



Dating back to before the F125's time, the Rotem equipment for Metrolink arrived in 2010 as the start of a wider fleet replacement scheme for the former Bombardier bi-level coaches. Delivered in both standard trailer and control car configurations, the Rotems would continue to offer the same level of push-pull flexibility as is standard on many US passenger lines. As part of Metrolink's naming scheme, the Rotem equipment is known as the "Guardian Fleet".

With older stock still in place, regardless of what coaches are used, Rotem cab cars are now always found at the non-powered ends of trains, with former bi-level stock's cabs plated up and out of use. This makes the striking appearance of the Rotem nose a common sight, and on the Antelope Valley Line, it leads the way southbound into Los Angeles.

Manufacturer.....	Hyundai Rotem
Build Location.....	Pennsylvania, USA
Build Date.....	2010-2013
Number Built (BTC).....	80 trailer cars
Number built (CTC).....	56 control cars
Capacity (BTC).....	179 seats (185 total)
Capacity (CTC).....	173 seats (179 total)

METROLINK ROTEM CONTROL TRAILER CAB - 1/2



- | | |
|---|------------------------------------|
| 1 - Contact Signaller Phone | 15 - Brake Gauges |
| 2 - Fuel Pump Switch | 16 - Reverser Handle |
| 3 - Generator Field Switch | 17 - Master Controller Handle |
| 4 - Cab Setup Switch | 18 - Wiper Middle Switch |
| 5 - Engine Run Switch | 19 - Wiper Right Switch |
| 6 - Cab Heater Switch | 20 - Automatic Brake Cut-Out Lever |
| 7 - Auxiliary Light Manual Flash Button | 21 - Automatic Brake Handle |
| 8 - MU Stop Button | 22 - Sander Button |
| 9 - Attendant Call Button | 23 - Bell Button |
| 10 - Cab Light Switch | 24 - ATS Acknowledge Button |
| 11 - Head and Aux Lights Switch | 25 - Horn Button |
| 12 - TMS Reset Button | 26 - Speedometer |
| 13 - Gauge Light Dimmer | 27 - Tractive Effort Gauge |
| 14 - Horn Sequencer Button | |

METROLINK ROTEM CONTROL TRAILER CAB - 2/2



- 28 - Door Interlock Bypass Switch
- 29 - ATS Cut-Out Switch
- 30 - HEP Alarm Cut-Out Switch
- 31 - Number Lights Switch
- 32 - Marker Lights Button
- 33 - Radio System Breaker
- 34 - Dynamic Brake Control Breaker
- 35 - Bell and Horn Control Breaker
- 36 - Cab Light Breaker
- 37 - AC/DC Converter Breaker
- 38 - Marker Light Breaker
- 39 - ATS Breaker
- 40 - Headlight Breaker
- 41 - Cab Heater Control Breaker
- 42 - PTC Breaker
- 43 - TMS Breaker

METROLINK ROTEM CONTROL TRAILER - PROCEDURES & UNIQUE FEATURES

Cab Setup

- When you are getting ready to start a service from the Rotem end, it is important that the first thing you do is turn the Cab Setup Switch to Setup, this is the main switch which tells the train that the cab car is in control, if you touch any controls first without confirming the position of the switch, the setup procedure will not be valid, and you will have to start again
- Another common switch to check in the setup procedure, much like in the F125 itself is the Generator Field Switch, this must be set to On

Brake Controls

- When setting up, you will need to cut-in the automatic brakes to activate them, the control for this is quite different when compared to the F125 but the overall function is the same
- From the control car, you can still take full advantage of the dynamic braking on offer, just remember that dynamic brakes are not designed to stop a train, so the blended mix of dynamics and air is needed

Other Bits & Bobs

- Getting into the cab is not as straightforward as it seems, you must enter through any of the passenger doors and make your way to the cab end of the train, then walk up the stairs to the upper deck, and navigate your way along the side of the cabin where you will find the internal cab door
- Much like when in the F125, the train formation features Rollback Prevention, so while best practice is to apply power before fully releasing the brakes, if you do start to run in the wrong direction when setting off, you will be kept within safe limits

EAST COAST MAIN LINE

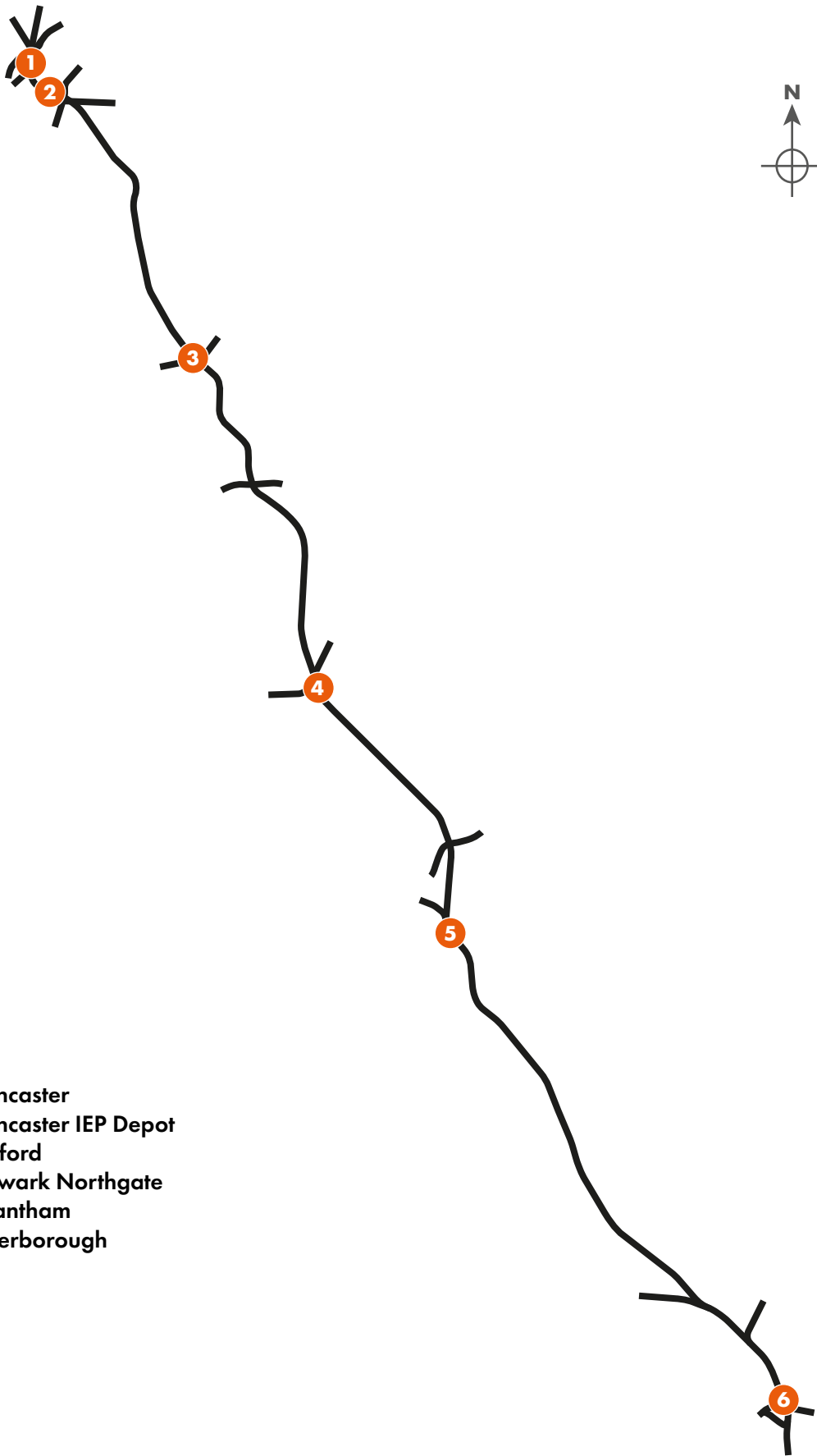


Welcome to the Midlands! With Train Sim World's East Coast Main Line, racetrack opportunities abound as you hurtle along the historic north-south route, in both the most modern and most famous trains. Taking over the sprint at Peterborough, LNER Azuma services hurry their way through multiple counties and quiet English countryside, either non-stop or serving towns in-between intercity service, arriving into complex Doncaster, where trains continue onward. Of course, a more leisurely pace can also be enjoyed, as the ECML is home to the world's most famous locomotive, Flying Scotsman! While heritage tours are limited to 75mph these days, there is nothing stopping you attempting to recreate the 100mph record attempt.

East Coast Main Line Bits & Bobs

- Between Peterborough and Grantham, keep an eye out for the Flashing Green signal aspect, this unique detail turns the signalling into a 5-aspect system, and was originally designed to give drivers one extra block for running at higher speed.
- Look out for Approach Control! Mainly found at junctions, this feature will hold a signal at Danger until it is sure you're going slow enough to safely pass.
- This section of the ECML is littered with passing loops, be vigilant when driving railtours or freight, you may be pulled over to let LNER services race ahead of you.
- There are many route tasks to complete, place route maps, refill water bottles, restock newspaper stands and restock first aid points

EAST COAST MAIN LINE ROUTE MAP



- 1 - Doncaster
- 2 - Doncaster IEP Depot
- 3 - Retford
- 4 - Newark Northgate
- 5 - Grantham
- 6 - Peterborough

LNER BR CLASS 801 AZUMA

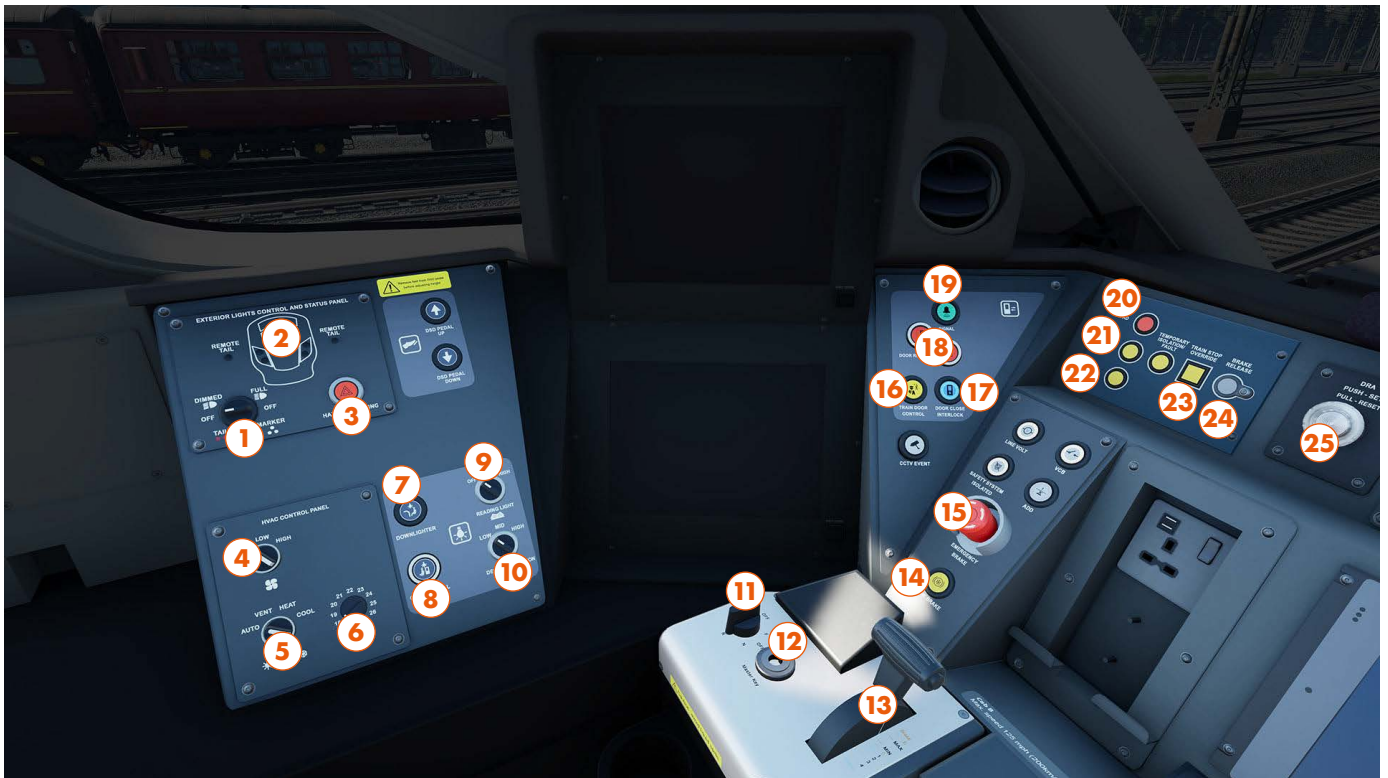


It's been "all change" for inter-city travel throughout the UK over the past several years, spearheaded by the introduction of the state-of-the-art AT300, a high-speed platform of trains which was designed to modernise fleets on the Great Western and North Eastern fronts. Introduced in 2009 initially as the Hitachi Super Express, the new trains would replace the iconic HST and Class 91s and usher in a new era for the UK. The first of the "Intercity Express Programme" trains entered service in 2017, and LNER's Azuma fleet of Class 801s would take their first passengers 2 years later.

Named the "Azuma" (Japanese for "East"), the fleet quickly became the flagship for LNER's express services, being welcomed onto every new route with fanfare and supported by artwork from the great railway illustrator, Tom Connell. Comprising of 2 subclasses, the Class 801s can serve in 5, 9 or 10-car formations, and operate the bulk of services on LNER's electrified network, being only fitted with a single backup diesel engine for shunting and emergency use only.

Manufacturer.....	Hitachi Rail
Build Location.....	Newton Aycliffe, England
Build Date.....	2017-2020
Number Built.....	42 sets
Power Type (AC).....	25kV AC OHLE
Backup Prime Mover.....	1 × MTU 12V 1600 R80L
Coaches.....	5-car (801/1)
Coaches.....	9-car (801/2)
Capacity (801/1).....	302 seats
Capacity (801/2).....	611 seats
Length (801/1).....	129.7 Metres (425 ft)
Length (801/2).....	233.7 Metres (766 ft)
Top Speed.....	125mph (200 km/h)

LNER BR CLASS 801 AZUMA CAB - 1/3



- | | |
|-------------------------------|--|
| 1 - Headlights Switch | 14 - Snow Brake Button |
| 2 - Headlight Indicator | 15 - Emergency Brake Plunger |
| 3 - Hazard Lights Button | 16 - Train Door Control Button |
| 4 - HVAC Fan Speed Switch | 17 - Door Close Interlock Button |
| 5 - HVAC Mode Switch | 18 - Left Doors Release Buttons |
| 6 - HVAC Temperature Switch | 19 - Guard's Signal Button |
| 7 - Downlighter Button | 20 - SPAD Acknowledge Button |
| 8 - Cab Central Light Button | 21 - Overspeed Button |
| 9 - Reading Light Switch | 22 - AWS Brake Acknowledge Button |
| 10 - Desk Illumination Switch | 23 - Train Stop Override Button |
| 11 - Reverser | 24 - TPWS Brake Release Button |
| 12 - Master Key | 25 - Driver Reminder's Appliance (DRA) |
| 13 - Power Handle | |

LNER BR CLASS 801 AZUMA CAB - 2/3



- 26 - Main Reservoir and Brake Cylinder Gauge
- 27 - Braking Effort Gauge
- 28 - AWS Sunflower
- 29 - Speedometer
- 30 - Forward Preparation Button
- 31 - Rear Preparation Button
- 32 - Couple Button
- 33 - Uncouple Button
- 34 - Wheel slip/slide Button
- 35 - AWS Acknowledge Plunger
- 36 - Guard's Signal Button
- 37 - Right Doors Release Button
- 38 - Doors Close Interlock
- 39 - Train Door Control Button
- 40 - DSD Override Button

- 41 - Horn Lever
- 42 - Electric Mode Button
- 43 - Pantograph Up Button
- 44 - Pantograph Down Button
- 45 - Windscreen Wiper Position Switch
- 46 - Windscreen Wiper Speed Switch
- 47 - Backup Diesel Start Button
- 48 - Backup Diesel Stop Button
- 49 - Backup Diesel Mode Button
- 50 - Backup Emergency Engine Stop Button
- 51 - GSM-R On/Off Button
- 52 - GSM-R Contact Signaller Button
- 53 - Train Management System (TMS)
- 54 - Emergency Brake Plunger
- 55 - Reading Light Switch

LNER BR CLASS 801 AZUMA CAB - 3/3



- 56 - DRA Isolation Switch
- 57 - SDO Isolation Switch
- 58 - AWS Isolation Switch
- 59 - TPWS Isolation Switch
- 60 - Vigilance Isolation Switch
- 61 - DSD Isolation Switch
- 62 - Auxiliary Off Button
- 63 - Auxiliary On Button
- 64 - Unit Hatch Close Button

- 65 - Pantograph Selection Switch
- 66 - TPWS Temporary Isolation Switch
- 67 - Cab Light Button
- 68 - Local Door Only Button
- 69 - Door Close Interlock Button
- 70 - Left Doors Release Button
- 71 - Control Panel Active Switch
- 72 - Guard's Signal Button

LNER BR CLASS 801 AZUMA - PROCEDURES & UNIQUE FEATURES

The Emergency Diesel Engine

- Unlike the fully bi-mode Class 800 and 802, the Class 801 is regarded as an EMU, however, it still features a single rescue engine that in reality is reserved for emergency use only
- To turn on Diesel Mode you must do the following:
 - Be stationary with the Reverser in Neutral
 - Press and hold the Engine Start Button for 10 Seconds
 - Press and hold the Diesel Button for 10 Seconds
 - If the Pantograph is raised, press the Pan Down Button until it has lowered
- Note, depending on your formation, as only a single diesel engine is present your performance will be severely limited, a 9-car 801 does not move in a hurry!

The Train Management Screen (TMS)

- Within the TMS, there are several things you can monitor and change while on your journey, firstly, you can adjust the brightness between 5 different levels using the light button
- It is able to tell you on the main screen what the next station stop and overall destination of your train is, although by pressing the up arrow, you can toggle the Next Stop Reminder to Off
- The main screen will also show you all the door statuses throughout the train, and pressing on the question mark will bring up the key, telling you what each colour means, for example, doors in red are unlocked or open
- When pressing the up arrow, you can also click on the following screens:
 - Traction Status will show you which pantographs are raised, as well as the line volts and Traction Motor torque
 - Brake Status will show you the overall Main Reservoir pressure, as well as the Brake Cylinder pressure in every coach
 - Panto Selection will let you choose which pantograph you want to use, if one is already raised, press the Pan Down Button in the cab, then on the TMS, press the Pan Select Button and then Confirm
- If you are on any page, Home will return you back to the main screen
- The Dark Screen button will turn off the TMS, tapping anywhere on the screen will wake it back up

Coupling and Uncoupling

- As is common with a lot of high-speed stock, the coupler on the Class 801 is hidden behind a nose cover
- To reveal the coupler so you can perform a coupling procedure, on both units you must have the Master Key in, and the Reverser in neutral, then press the Forward Preparation Button to open each nose
- Once you've drawn up and physically coupled to another unit, press the Couple button for X seconds
- To uncouple, press the Uncouple button for X seconds and then slowly pull away from the other unit
- To re-cover the coupler, press the Unit Hatch Close Button on the rear wall of each unit

Other Bits & Bobs

- The BR Class 801 has a dual-volume horn functionality in similar respects to the BR Class 395, designed to play louder or quieter automatically depending on the context the train is in
- When the Master Key is in and the train is between 0 and 100 mph, the horns will sound with 6.5 bar of air pressure
- When the Master Key is out, or the train is above 100 mph, the horns will sound with 10 bar

EWS BR CLASS 66



Perhaps one of the most widespread and successful locomotives in the UK, the Class 66 was introduced following the successful albeit limited number of Class 59s. Built across the pond in Ontario, Canada, this massive fleet of locomotives bears many operational similarities to their North American cousins. Capable of hauling a large variety of freight and able to fit almost anywhere, there aren't many places you won't see a 66 out and about. Between 1998 and 2015, a total of 480 locomotives were delivered directly to the UK, with many more also built for Continental Europe.

Manufacturer.....	Electro-Motive Diesel
Build Location.....	Ontario, Canada
Build Date.....	1998-2015
Number Built.....	480 (UK Locos)
Engine Type.....	Two-stroke V12 diesel
Prime Mover.....	EMD 12N-710
Traction Motors.....	6× EMD D43TRC
Power Output.....	3200 Horsepower
Length.....	21.39 Metres (70 ft 2 in)
Weight.....	127 Metric Tons
Top Speed.....	75mph (120 km/h)

EWS BR CLASS 66 CAB - 1/5



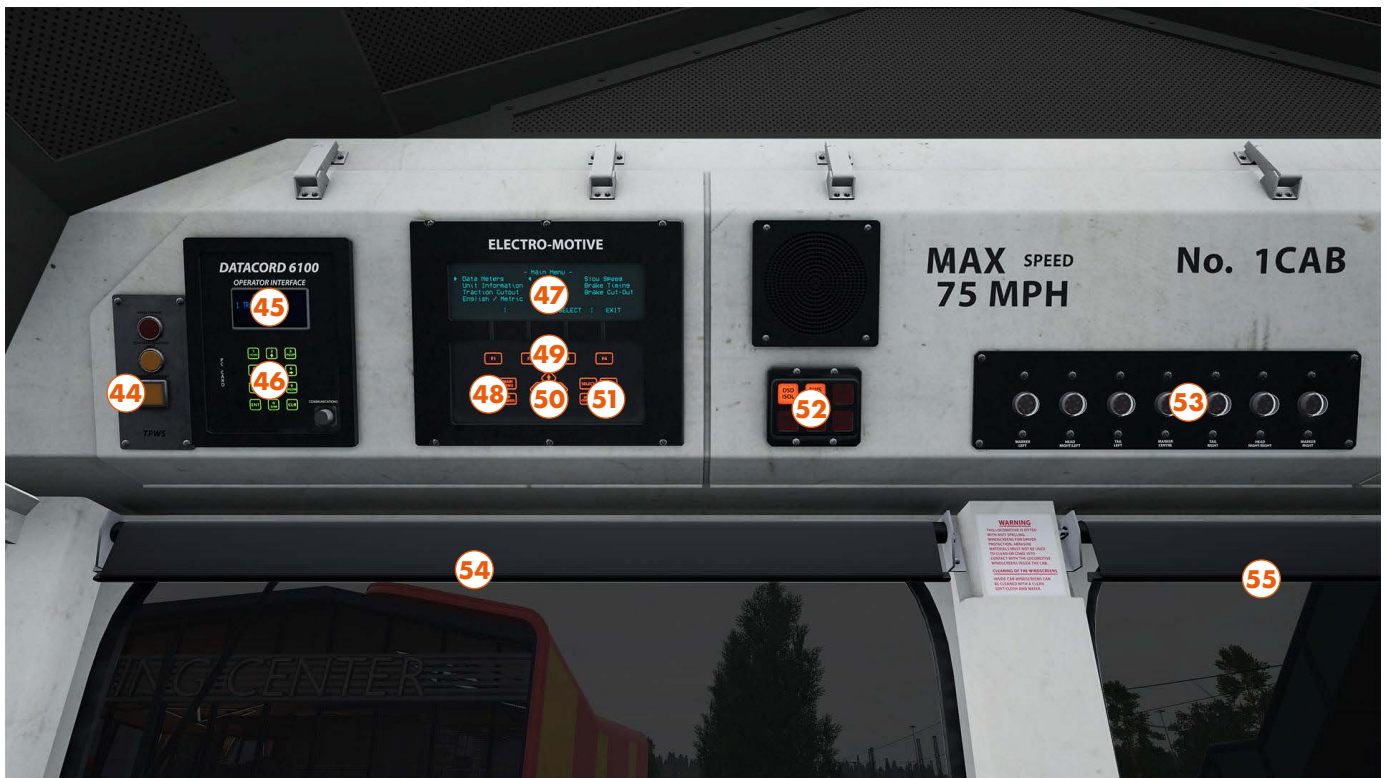
- | | |
|-----------------------------------|-------------------------------------|
| 1 - Hazard Lights Button | 18 - Main Reservoir Gauge |
| 2 - AWS Reset Button | 19 - Direct Brake Gauge |
| 3 - Horn Lever | 20 - Air Flow Gauge |
| 4 - Automatic Brake Handle | 21 - Automatic Brake Gauge |
| 5 - Direct Brake Handle | 22 - Speedometer |
| 6 - Train Length Button | 23 - Tractive Effort Gauge |
| 7 - Slow Speed Control Switches | 24 - AWS Sunflower |
| 8 - Sander Switch | 25 - Instrument Light Dimmer Switch |
| 9 - Emergency Brake Plunger | 26 - Windscreen Wiper Left Switch |
| 10 - Left Cab Window | 27 - Banking Comm Button |
| 11 - Brake Timing Indicators | 28 - Throttle Handle |
| 12 - Parking Brake Apply Button | 29 - Reverser |
| 13 - Parking Brake Indicator | 30 - Isolation Switch |
| 14 - Parking Brake Release Button | 31 - Engine Run Switch |
| 15 - Brake Overcharge Button | 32 - Generator Field Switch |
| 16 - Engine Start Button | 33 - Control & Fuel Pump Switch |
| 17 - Engine Stop Button | |

EWS BR CLASS 66 CAB - 2/5



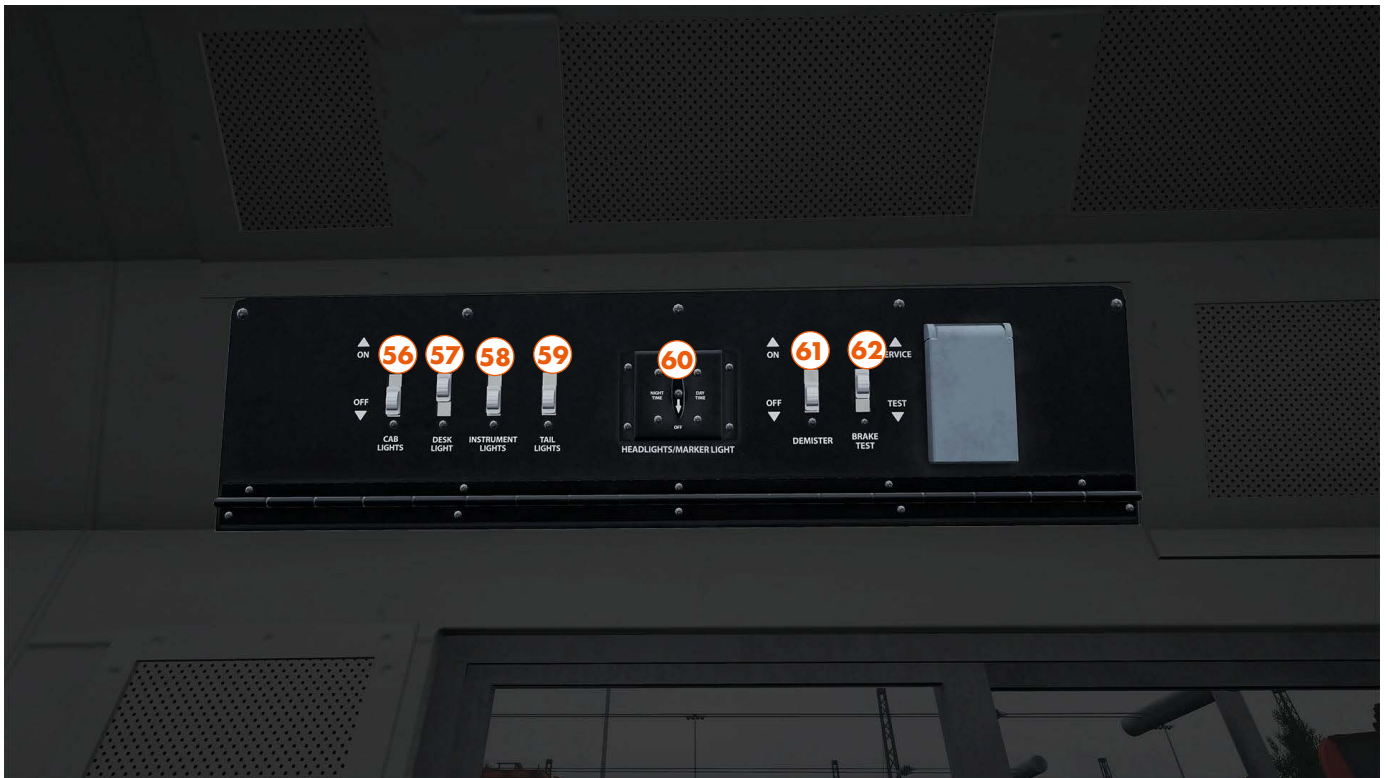
- 34 - Contact Signaller Phone
- 35 - Hot Plate Switch
- 36 - Windscreen Wiper Right Switch
- 37 - Fresh Air Lever
- 38 - High Speed Switch
- 39 - Overheating Switch
- 40 - Heater Speed Switch
- 41 - Driver Safety Device Button
- 42 - Horn Lever
- 43 - Right Cab Window

EWS BR CLASS 66 CAB - 3/5



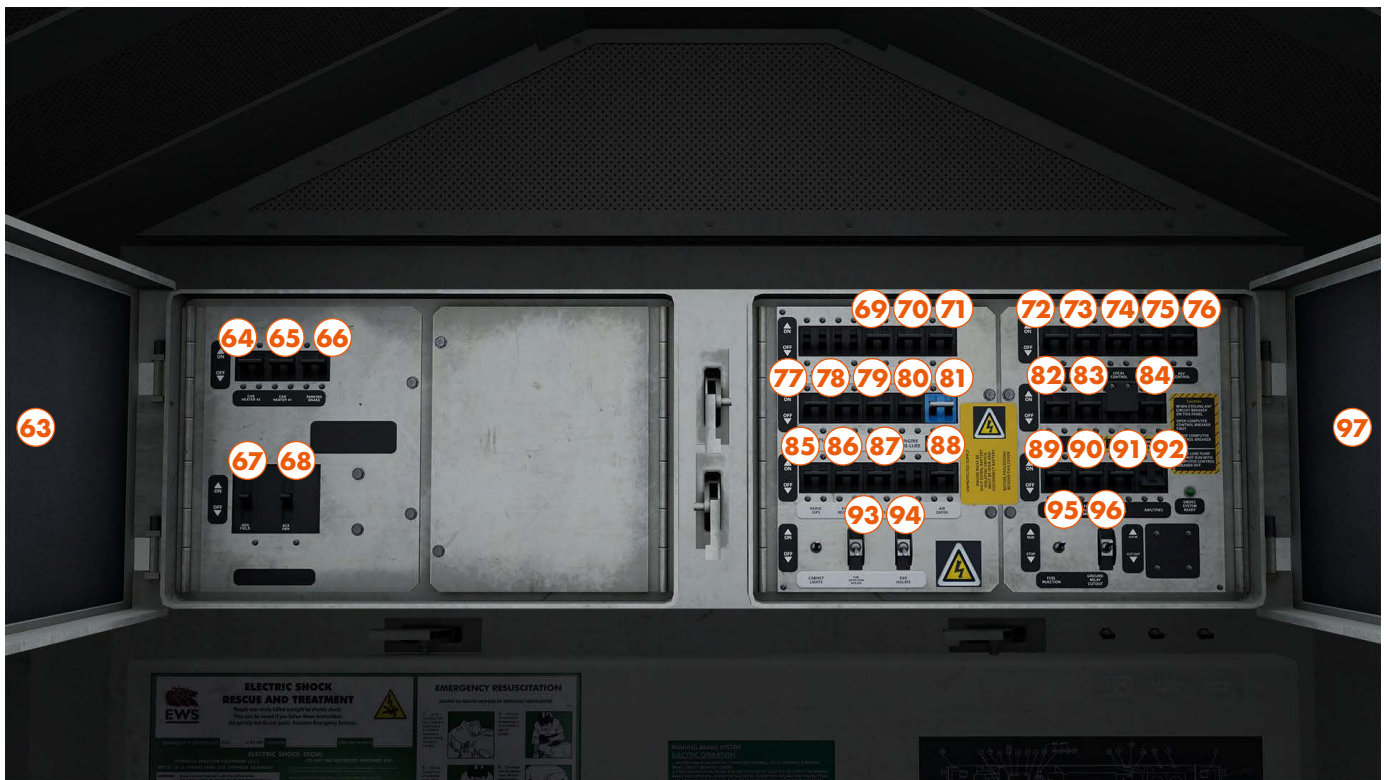
- 44 - TPWS Train Stop Override
- 45 - Train Length Screen
- 46 - Train Length Keypad
- 47 - Train Management System "TMS" Screen
- 48 - TMS Power/Options Keys
- 49 - TMS Function Keys
- 50 - TMS Arrow Keys
- 51 - TMS Selection Keys
- 52 - Safety Systems Indicator
- 53 - Head & Tail Lights Indicator
- 54 - Left Side Blind
- 55 - Right Side Blind

EWS BR CLASS 66 CAB - 4/5



- 56 - Cab Lights Switch
- 57 - Desk Light Switch
- 58 - Instrument Lights Switch
- 59 - Tail Lights Switch
- 60 - Headlights Switch
- 61 - Demister Switch
- 62 - Brake Test Switch

EWS BR CLASS 66 CAB (No. 1 Cab Only) - 5/5



- 63 - Left Fuse Cabinet Door
- 64 - Cab Heaters 2 Fuse
- 65 - Cab Heaters 1 Fuse
- 66 - Parking Brake Fuse
- 67 - Generator Field Fuse
- 68 - Aux Gen Fuse
- 69 - Windshield Heater 2 Fuse
- 70 - Windshield Heater 1 Fuse
- 71 - Fuel Gauge Fuse
- 72 - AC Control Fuse
- 73 - Control Fuse
- 74 - Local Control Fuse
- 75 - Engine Control Fuse
- 76 - Rev Control Fuse
- 77 - Lights 2 Fuse
- 78 - Lights 1 Fuse
- 79 - Headlights Fuse
- 80 - Engine Pre Lube Fuse

- 81 - ETCS fuse
- 82 - Aux Generator Field Fuse
- 83 - Aux Generator Feedback Fuse
- 84 - Computer Control Fuse
- 85 - Radio/GPS Fuse
- 86 - Event Recorder Fuse
- 87 - Tail Lights Fuse
- 88 - Air Dryer Fuse
- 89 - Main Generator Fuse
- 90 - Filter Blower Motor Fuse
- 91 - Fuel Pump Fuse
- 92 - AWS/TPWS Isolation Fuse
- 93 - Fire Detection Isolate Switch
- 94 - DSD Isolate Switch
- 95 - Fuel Injection Switch
- 96 - Ground Relay Cutout Switch
- 97 - Right Fuse Cabinet Door

EWS BR CLASS 66 - PROCEDURES & UNIQUE FEATURES

The Train Management Screen (TMS)

- The TMS can be found above the driver's windscreen
- It is used for controlling various functions of the train
- Using the push buttons to navigate it you can:
 - Cut in and out the brake control from the locomotive, useful if brakes are to be controlled by another locomotive in the formation
 - Change brake modes between freight and passenger, this changes the timings of brake applications, although some freight services just use passenger anyway
 - Isolating traction motors, in reality this would be for cutting out any problematic motors, although it provides an interesting challenge to move with less powered axles

PBL90 Brakes

- The BR Class 66 features what is known as the PBL90 Brake Control, a system which is mounted on the brake frame and controls how the driver is able to apply and release the brakes
- In essence, they work very similarly to how one would expect the brakes of lapped system to function, in that, you hold the brake handle in the apply or release position for as long as needed to achieve the desired brake force
- When moving the handle, you will see the outer needle on the brake gauge swing round, and wherever you release the handle is where the needle will stop - the brake needle itself will follow more slowly, depending on the brake timing as selected on the TMS

Couplings

- The BR Class 66 has 2 types of couplings on either end, a standard hook for coupling to wagons with a chain, and a buckeye coupler
- Most freight should be coupled to using the hook and chain method, to do this, you may need to swing the buckeye out of the way, there is a handle on the front of the locomotive to release and move it

LNER CLASS A3 60103 FLYING SCOTSMAN



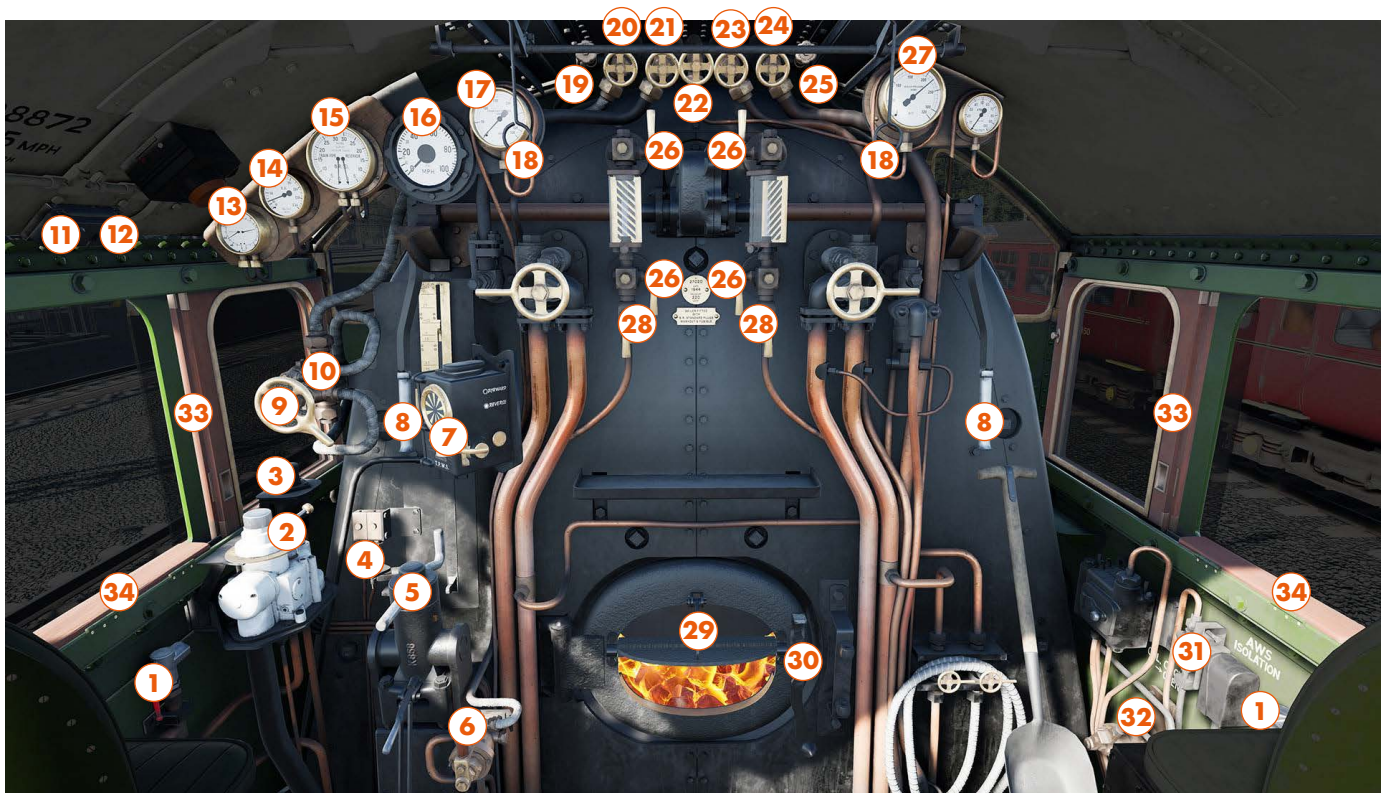
An icon that truly needs no introduction; Flying Scotsman is perhaps the most famous locomotive in the World. Its long lineage dates back to the 1920s, when the newly-merged LNER was in the midst of procuring a new fleet of express passenger locomotives, based on the "Pacific" wheel configuration and designed by the legendary Sir Nigel Gresley. Initially bearing the number 1472, Flying Scotsman, named after the London-Edinburgh express service, entered service in February 1923.

The locomotive would be sprung into public knowledge with a slew of notable events, its presence at the British Empire Exhibition and use in promotional materials made it the flagship of the LNER. Of course, it would be further flung to fame by operating the first non-stop London to Edinburgh service in 1928, and being the first steam locomotive to officially reach 100mph. It was this cadence of popularity which made Flying Scotsman the perfect (and only) candidate for LNER Class A3 preservation at the end of steam.

Records continued after avoiding the cutters torch, following a daring tour of the United States in 1969, Scotsman would make it way to Australia where the longest non-stop run for a steam locomotive was achieved. Since 2004, Scotsman, now bearing its BR numbers 60103, has been in the good hands of the National Railway Museum in York, who are now celebrating its 100th anniversary in glorious fashion.

Manufacturer.....	London North Eastern Railway
Build Location.....	Doncaster, England
Build Date.....	1923
Number Built.....	1 (78 total)
Whyte Notation.....	4-6-2
Cylinders.....	Three
Tractive Effort.....	32910 lbf (146.39 kN)
Length.....	21.34 Metres (70 ft)
Weight.....	97.79 Metric Tons
Record Speed.....	100mph (160 km/h)

LNER CLASS A3 60103 FLYING SCOTSMAN FOOTPLATE - 1/2



- | | |
|-----------------------------------|-------------------------------------|
| 1 - Emergency Brake Valve | 18 - Whistle |
| 2 - Train Brake Handle | 19 - Whistle Isolation Valve |
| 3 - Locomotive Brake Handle | 20 - Ejector Isolation Valve |
| 4 - Vacuum Chamber Release Valve | 21 - Blower Isolation Valve |
| 5 - Horn Lever | 22 - Pressure Gauge Isolation Valve |
| 6 - Contact Signaller Phone | 23 - Steam Heating Regulating Valve |
| 7 - AWS Acknowledge and Sunflower | 24 - Compressor Isolation Valve |
| 8 - Regulator | 25 - Cylinder Cocks Isolation Valve |
| 9 - Large Ejector | 26 - Gauge Glass Isolating Cock |
| 10 - Small Ejector | 27 - Boiler Pressure Gauge |
| 11 - Left Cab Light | 28 - Gauge Glass Drain Lever |
| 12 - Right Cab Light | 29 - Firebox Cat Flap |
| 13 - Air Brake Pipe Gauge | 30 - Firebox Door |
| 14 - Air Brake Cylinder Gauge | 31 - AWS Isolation Lever |
| 15 - Vacuum Brake Reservoir Gauge | 32 - Cylinder Cocks Lever |
| 16 - Speedometer | 33 - Openable Side Windows |
| 17 - Steam Chest Pressure Gauge | 34 - Arm Rest |

LNER CLASS A3 60103 FLYING SCOTSMAN FOOTPLATE - 2/2



- 35 - Central Cab Light Switch
- 36 - GSM-R Cabinet Door
- 37 - Coal Door
- 38 - Handbrake Handle
- 39 - Tender Corridor Door
- 40 - Tender Vacuum Chamber Release Valve

LNER CLASS A3 60103 FLYING SCOTSMAN - PROCEDURES & UNIQUE FEATURES

Know Your Brakes

- Because Flying Scotsman is a modern, mainline-capable preserved steam locomotive, it has many differences compared to itself in years past and other steam era locomotives in Train Sim World, one of those key differences is brakes
- While still equipped with vacuum brakes, for use with typical vacuum-braked rolling stock, Flying Scotsman also has air brakes, and unlike diesel locomotives which a straightforward selector, the brakes in the trainset react accordingly to the way you operate the brakes, so its essential to know your stock, and what to do if you need to switch
- If you are running with AIR BRAKES, so for example, the MK1 BG and MK2 coaches included with Scotsman, you only need to operate the main train brake handle, do not touch the large or small ejectors, as you may be used to, this will kick the vacuum brakes into effect in the dual-braked Mk1 BG and result in both air and vacuum trying to operate at the same time
- If you do operate the vacuum brakes by accident, you will need to vent the brakes in any vacuum-braked stock, including separately Scotsman's loco and tender, and the Mk1 BG
- If you are running with VACUUM BRAKES, so for example, the Mk1s included in Training Center or wagons in Spirit of Steam, you will need to operate the small and large ejectors to use vacuum braking throughout the train

Coupling options

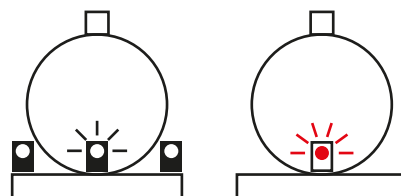
- Flying Scotsman has a couple different ways of coupling to other rolling stock, on the front of the loco is standard hook and chain, however the corridor tender features a hook and buckeye configuration
- The buckeye is used for maintaining a tight connection with coaches so that the corridor tender retains a safe crossing for crew, but it also means it can theoretically couple to anything with a buckeye (yes, even the rescue coupling on the Great Western Express HST)
- To couple Scotsman to another locomotive, you will most likely need to drop the buckeye, so that the other locomotive's chain can attach to Scotsman's hook

The Corridor Tender

- The corridor built into the side of Scotsman's tender was an innovative way to allow for crew changes while on the move, however, it is a very cramped environment, so you must remember the following:
- You will need to crouch in order to walk through the tender
- You may only be able to traverse the tender while the train is stationary or on a straight piece of track, excessive rocking and superelevation (leaning of the rails around corners) can make it impossible for the collision to reliably let you in

Headlamps modernised

- Much like in the steam era, Flying Scotsman still relies on the headcode and lamp setup as detailed in the Training Center section, however, the key difference being a preserved, mainline locomotive is Scotsman must also run with a high intensity head lamp, which often sits in the middle bracket, between the A Class express configuration
- Also featured are modern flashing LED tail lamps for placement when moving as a light loco



NAHVERKEHR DRESDEN - RIESA



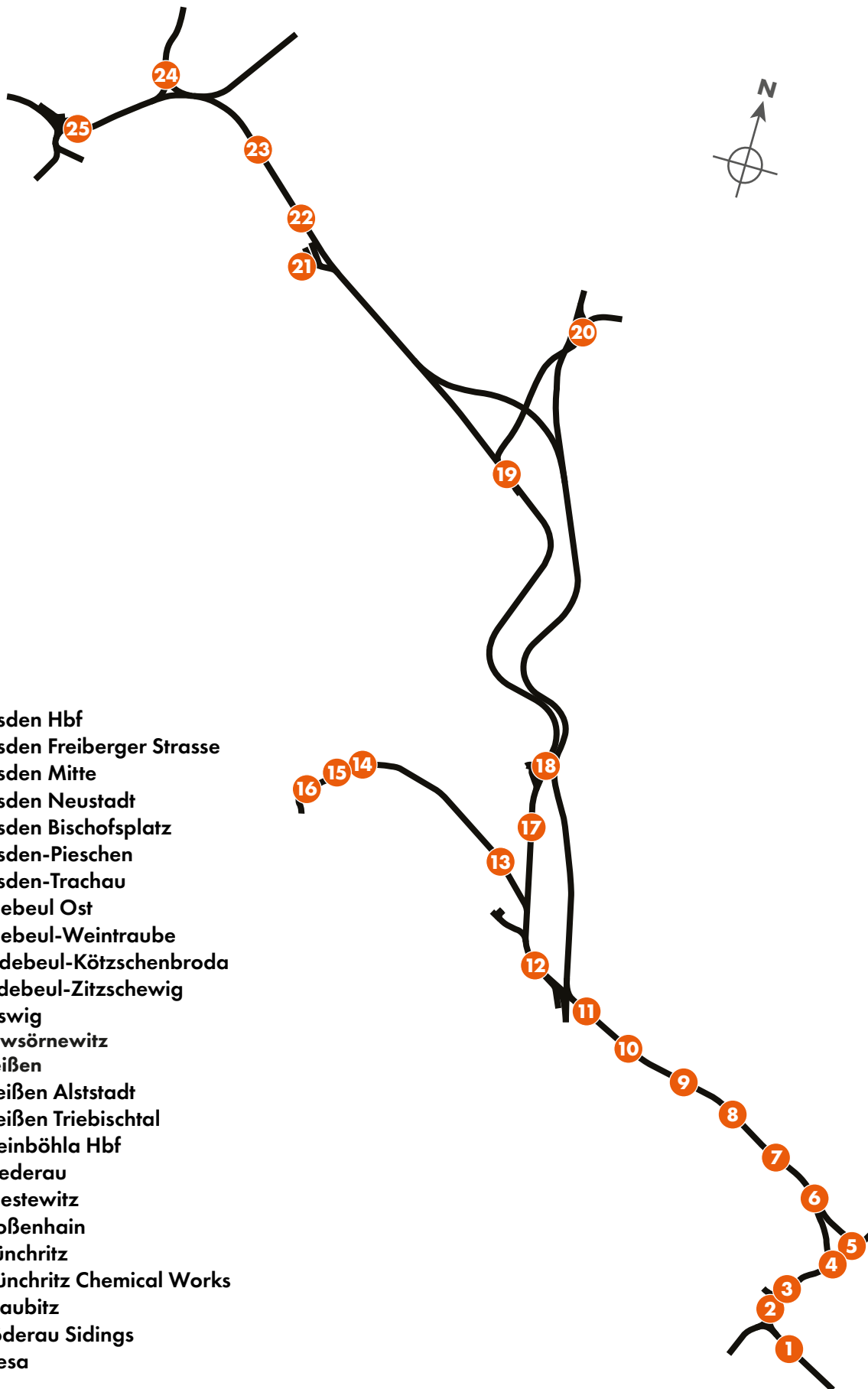
Welcome to Dresden! A fan favourite returns in, quite literally, a new light, as the former Train Sim World Rush Hour route, Nahverkehr Dresden - Riesa, plays host to the all new Vectron in Train Sim World 4!

For those unfamiliar with the route, Dresden - Riesa is a network in every right. Sprouting from the multi-level Dresden Hbf, the line quickly falls into dense S-Bahn territory, with multiple stations within the first few km alone. After the equally impressive Dresden Neustadt, a sharp turn northwest takes trains further out into the suburbs, following which the line sprawls out into 3. The avoiding line, for express and freight traffic, takes its own, stationless path between Radebeul and Nünchritz, meanwhile the passenger line continues on its own way via multiple towns, and from that, an additional 2 lines branch off - the S-Bahn line to Meißen, and the regional line to Großenhain. The remainder of the passenger traffic converges at Nünchritz for the final run and sweeping curve into Riesa. In all, it's a whopping 80+ km rail network packed with all sorts of traffic!

Nahverkehr Dresden - Riesa Bits & Bobs

- Go exploring on the Meißen branch! Packed with detail, there's lots to see within the quaint town of Meissen, and you can even find a walkway or two away from trackside.
- The route has been entirely updated to feature the "TOD4" skies as introduced in Train Sim World 3, offering stunning sunrises and sunsets, shadowed by volumetric clouds!
- One fun extra detail on the stations is an interactive ticket checker, it even beeps!
- There are many Route Tasks to complete, with route maps to place, first aid points to restock, rogue gnomes to find and graffiti to clean up.

NAHVERKEHR DRESDEN - RIESA ROUTE MAP



DB BR 442

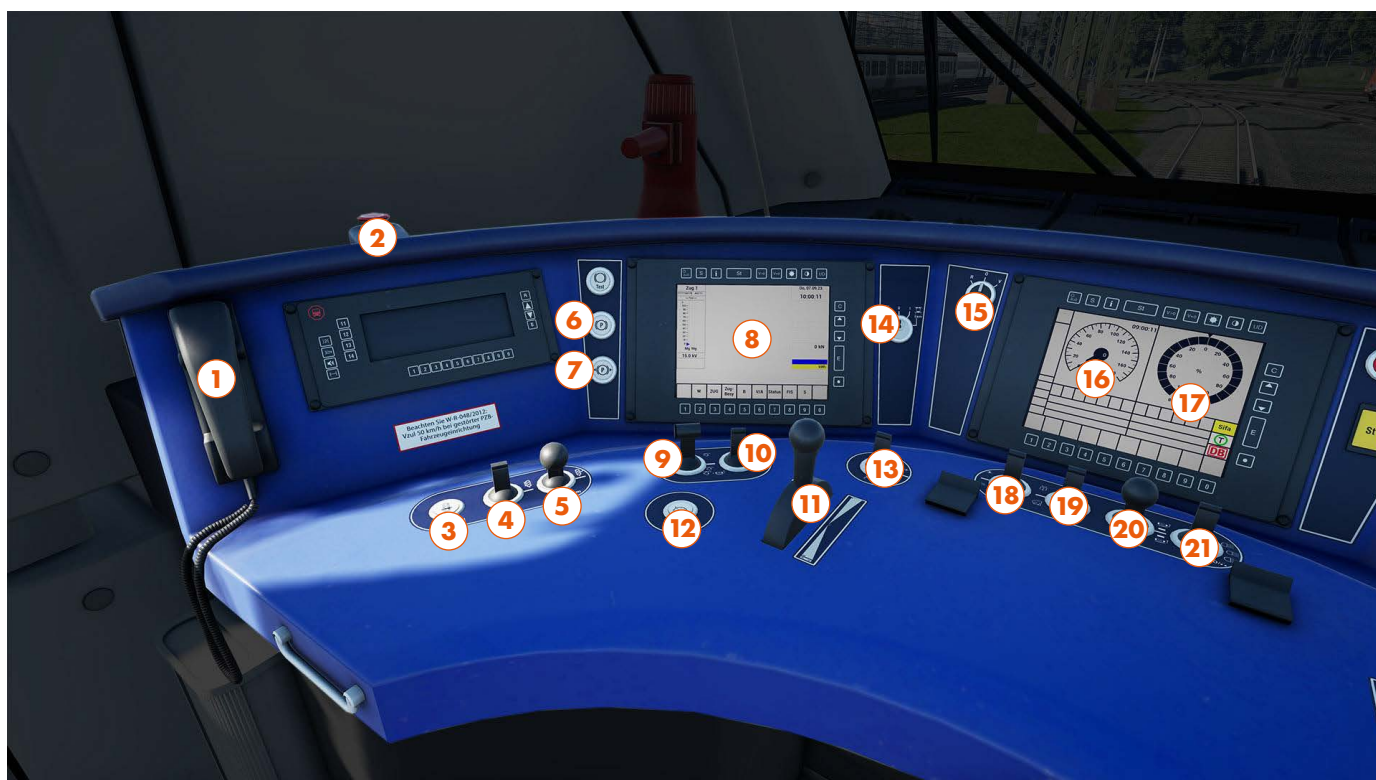


Austria may have Talent, but Germany has Talent too! Built to many different configurations for use across Germany, the upgraded Talent 2s actually bear little resemblance to their older counterparts; low floors and curved bodies aside, the rounded front ends were replaced with a more subtle, yet equally iconic design, lending the fleet their nickname of “hamster cheeks”.

For the railway network of Dresden, the DB BR 442 Talent 2 is used on a variety of services, although mainly on regional stints out towards Riesa and Großenhain. The 3-car 442.1 variant is operated here, although other variants can be found throughout Germany, 4-car sets for example can be found in Köln, and on dedicated S-Bahn networks, such as around Leipzig, there are also 3-car sets with alternative door layouts for faster boarding and alighting of passengers.

Manufacturer.....	Bombardier
Build Location.....	Hennigsdorf, Germany
Build Date.....	2008-2015
Number Built.....	60 sets (442.1)
Power Type.....	15kV AC OHLE
Power Output.....	2040 horsepower
Coaches.....	3-car (442.1)
Capacity.....	168 Passengers (442.1)
Length.....	56.2 Metres (184.3 ft) (442.1)
Weight.....	108 Metric Tons (442.1)
Top Speed.....	160 km/h (100 mph)

DB BR 442 CAB - 1/3



- 1 - Contact Signaller Phone
- 2 - Emergency Brake Plunger
- 3 - PZB Override Button
- 4 - PZB Release Switch
- 5 - PZB Acknowledge Switch
- 6 - Handbrake Apply Button
- 7 - Handbrake Release Button
- 8 - Left Multi-Function Display (MFD)
- 9 - Pantograph Switch
- 10 - Main Circuit Breaker Switch
- 11 - Combined Power Handle

- 12 - Tempomat Button
- 13 - Tempomat Switch
- 14 - Master Key Switch
- 15 - Master (Reverser) Switch
- 16 - Central MFD (Speedometer)
- 17 - Central MFD (Tractive Effort)
- 18 - Train Lights Switch
- 19 - Cabin Lights Switch
- 20 - Sander Switch
- 21 - Headlights/Tail Lights Switch

DB BR 442 CAB - 2/3



- 22 - Brake Pressure Gauges
- 23 - Indirect Brake Handle
- 24 - Horn High Button
- 25 - Horn Low Button
- 26 - Open Passenger Doors Left
- 27 - Close Passenger Doors
- 28 - Open Passenger Doors Right
- 29 - Door Ramp Button
- 30 - Instrument Lights Dimmer Switch
- 31 - Reading Light Dimmer Switch
- 32 - Wipers Switch

DB BR 442 CAB - 3/3



- 33 - Battery Voltage Meter
- 34 - SIFA Isolation Switch
- 35 - PZB Isolation Switch
- 36 - Battery Switch

DB BR 442 - PROCEDURES & UNIQUE FEATURES

Tempomat Control

- Like its Austrian predecessor, the BR 442 has its own unique style of Speed Set which is unlike AFB, this is known as the Tempomat (Cruise Control)
- To enable Tempomat while stationary:
 - With the Combined Power Handle in 0 position, press the Tempomat Button so it is On
 - Select your desired speed by moving the Tempomat switch into increase, allowing for 1-5 km/h then increasing in 5 km/h increments upto X km/h
 - You can change your speed at anytime using the Tempomat increase or decrease ranges
 - While Tempomat is enabled, the Combined Power Handle has no effect, the train will accelerate and brake with it left in the 0 position - if you move the Handle into power or braking then back to 0, this will automatically disable Tempomat
- To enable Tempomat while on the move:
 - Move the Combined Power Handle to the 0 position
 - Press the Tempomat Button so it is On
 - The train will hold the speed you are currently coasting at, and you can use the Tempomat Switch to increase or decrease your speed

Coupling and Uncoupling

- To couple in the BR 442, slowly approach another unit and make contact, there is no need to press a button to confirm or make an electrical connection
- To uncouple a unit which is connected to the cab end you are sitting in, you must be stationary, with the Reverser and Power Handles in neutral positions, and rotate the Master Key all the way to the left for the "Uncouple Local" mode, hold it there for 5 seconds to electronically uncouple the train
- If a unit is coupled to the rear end of your unit however, then instead of turning the key left, turn the key right into the "Uncouple Remote" mode, this will electronically uncouple a unit from behind
- Once the uncoupling has been made, slowly pull away from the other unit to release the physical couplings
- It can be a common mistake to turn the Master Key when setting up a train without thinking about the additional "Remote" setting, if you turn it too far, you may accidentally leave the rear unit behind, so take care when going through initial train setup at the start of a service

DB BR 143

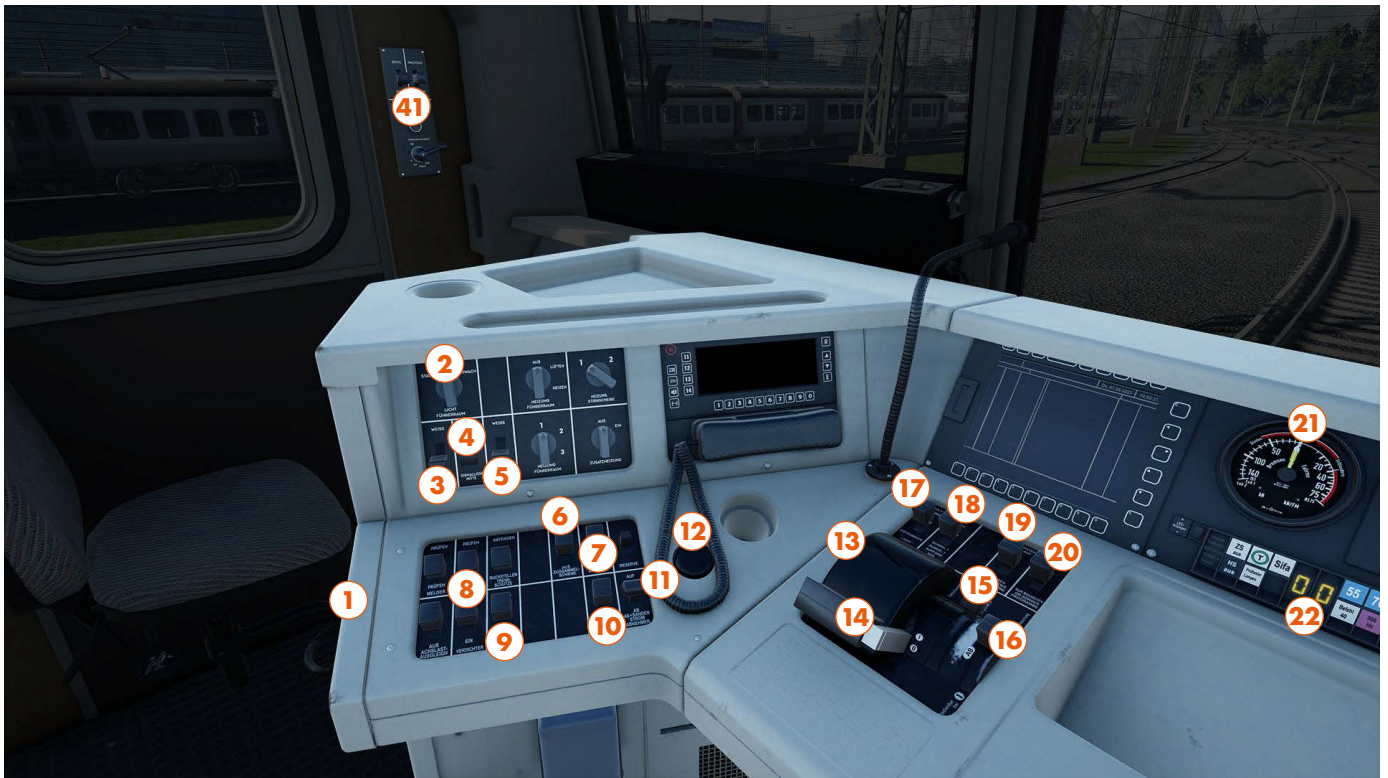


A German classic in every right, the DB BR 143 dates back to the 1970s and was the answer to the Deutsche Reichsbahn's mass electrification project. With the conversion of many lines to electric power, combatting the 1973 oil crisis, a new fleet of electric locomotives would be needed to replace ageing diesels of Soviet origin. Originally known as the DR Class 243, this box-like locomotive was based on the heavier 250 (DB BR 155) but better suited for medium freight, and primarily passenger work, and following prototype tests, the production locos were ready for the next decade.

With literally hundreds built, there are not many places one can go without finding at least some 143s dotted about, even with their age, the first few did not start to be retired until 2008. For Dresden, the 143s continue to play a role on S-Bahn lines, but also on the occasional regional, and even freight service, keeping up its diverse role to this day.

Manufacturer.....	LEW Hennigsdorf
Build Location.....	Hennigsdorf and Dresden, Germany
Build Date.....	1982-1991
Number Built.....	646 locos
Power Type.....	15kV AC OHLE
Power Output.....	4990 horsepower
Length.....	16.6 Metres (54 ft)
Weight.....	82.5 Metric Tons
Top Speed.....	120 km/h (75 mph)

DB BR 143 CAB - 1/2



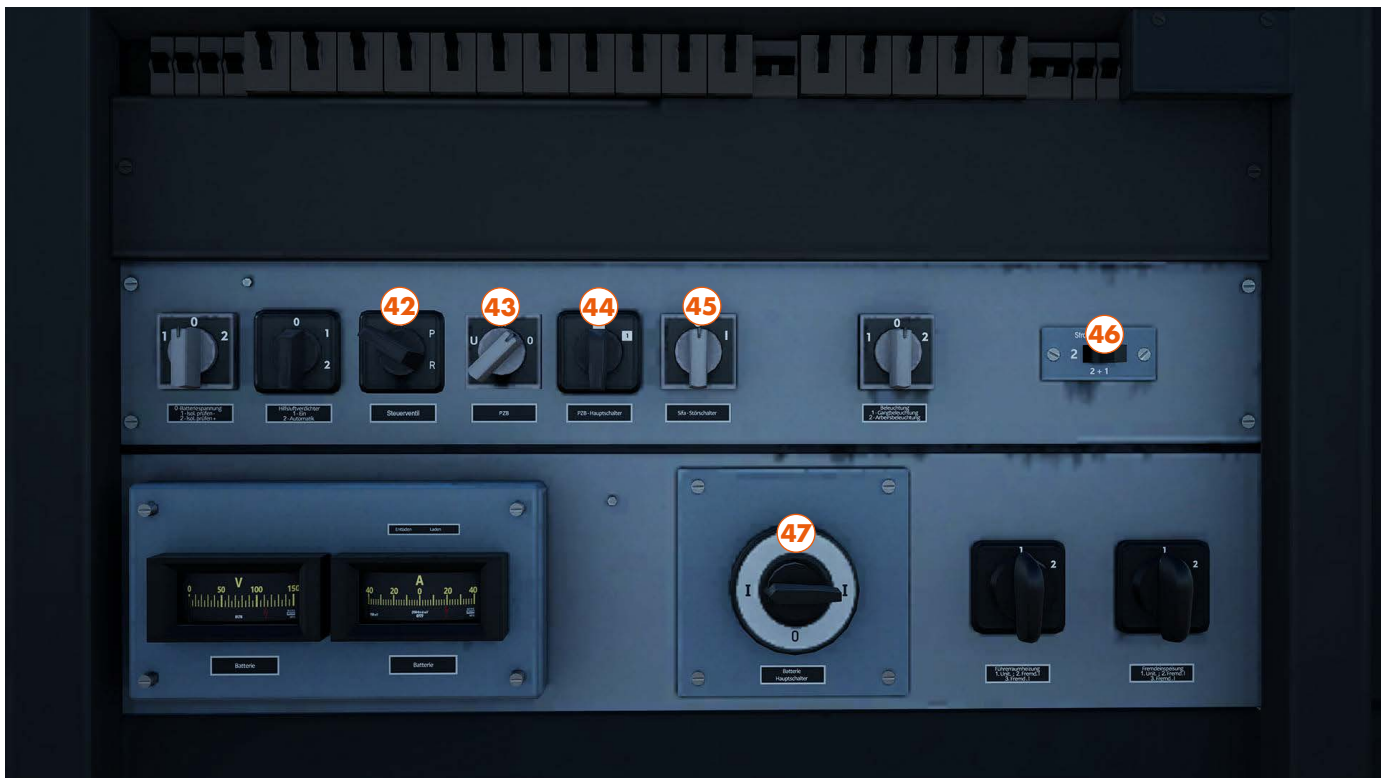
- | | |
|----------------------------------|------------------------------------|
| 1 - Handbrake Handle | 12 - SIFA Button |
| 2 - Cab Light Switch | 13 - Reverser Handle |
| 3 - Headlight Left Switch | 14 - Speed Selector Handle |
| 4 - Headlight Switch | 15 - Force Selector Lever |
| 5 - Headlight Right Switch | 16 - Auxiliary Control Lever |
| 6 - Train Line Power Switch | 17 - Instrument Lights Switch |
| 7 - Train Lights Switch | 18 - Desk Light Switch |
| 8 - Compressor Switch | 19 - Running Program Switch |
| 9 - Traction Motor Fan Switch | 20 - Traction/Brake Program Switch |
| 10 - Main Circuit Breaker Switch | 21 - Tractive Effort Gauge |
| 11 - Pantograph Switch | 22 - Tap Changer Indicator |

DB BR 143 CAB - 2/2



- 23 - Speedometer
- 24 - Indicator Check Button
- 25 - Door Side Selector Switch
- 26 - Brake Pressure Gauges
- 27 - PZB Override Switch
- 28 - PZB Release Switch
- 29 - PZB Acknowledge Switch
- 30 - Headlight Brightness Switch
- 31 - Brake Release Button
- 32 - Passenger Doors Switch
- 33 - Horn Switch
- 34 - Brake Bridging Switch
- 35 - Sand Switch
- 36 - Train Brake Handle
- 37 - Train Brake Key
- 38 - Direct Brake Handle
- 39 - Wiper Toggle and Speed Select
- 40 - Emergency Brake Valve
- 41 - Shunting Controls

DB BR 143 - CORRIDOR



- 42 - Brake Selector Switch
- 43 - PZB Mode Switch
- 44 - PZB Isolation Switch
- 45 - SIFA Isolation Switch
- 46 - Pantograph Selector Switch
- 47 - Battery Switch

DB BR 143 - PROCEDURES & UNIQUE FEATURES

Throttle Control

- Unlike most locomotives, both in Germany and overall, the main throttle on the DB BR 143 acts much more like a built-in speed set selector; instead of manually managing power, and setting AFB, each notch on the 143's throttle is set to different speeds in 10 km/h increments between 0 and 120 km/h
- Behind the scenes, this speed selector is automatically cycling through the tap changer, running up and down the 31 available notches of power
- If you wish to have manual control, without the speed being automatically set, move the Speed Selector to On, and then use the Auxiliary control to manually cycle the tap changer, you can see this number increase and decrease on the digital display in front of you
- Auxiliary control can be useful for applying small amounts of power during shunting/coupling procedures, and it can also let you push beyond the 120 km/h speed limit should you wish to
- Lastly, you can also control how much power is applied by using the Force Selector, this will limit or even boost the available tractive effort for finer control and additional pulling power when needed

Changing PZB Mode

- Make sure that the locomotive is stationary, and the PZB Isolation Switch is set to Off
- Set the desired PZB Mode by moving the PZB Mode Switch to "U", "M" or "O" - this switch is found in the main corridor between the 2 cabs
- Re-enable PZB with the PZB Isolation Switch
- If the total BrH (braked weight percentage) is less than or equal to 65, set the PZB Mode to "U", if the BrH exceeds 65 but is less than 111, set the PZB Mode to "M", otherwise set the PZB Mode to "O"
- In Timetable Mode, the correct PZB Mode for your train should be automatically selected

Other Bits & Bobs

- To enable the train brakes, you must first ensure that the Brake Key has been turned on to cut them in
- The headlights and red tail lights share the same controls, move the outer light switches up for white headlights, and down for red tail lights

DB BR 146.2

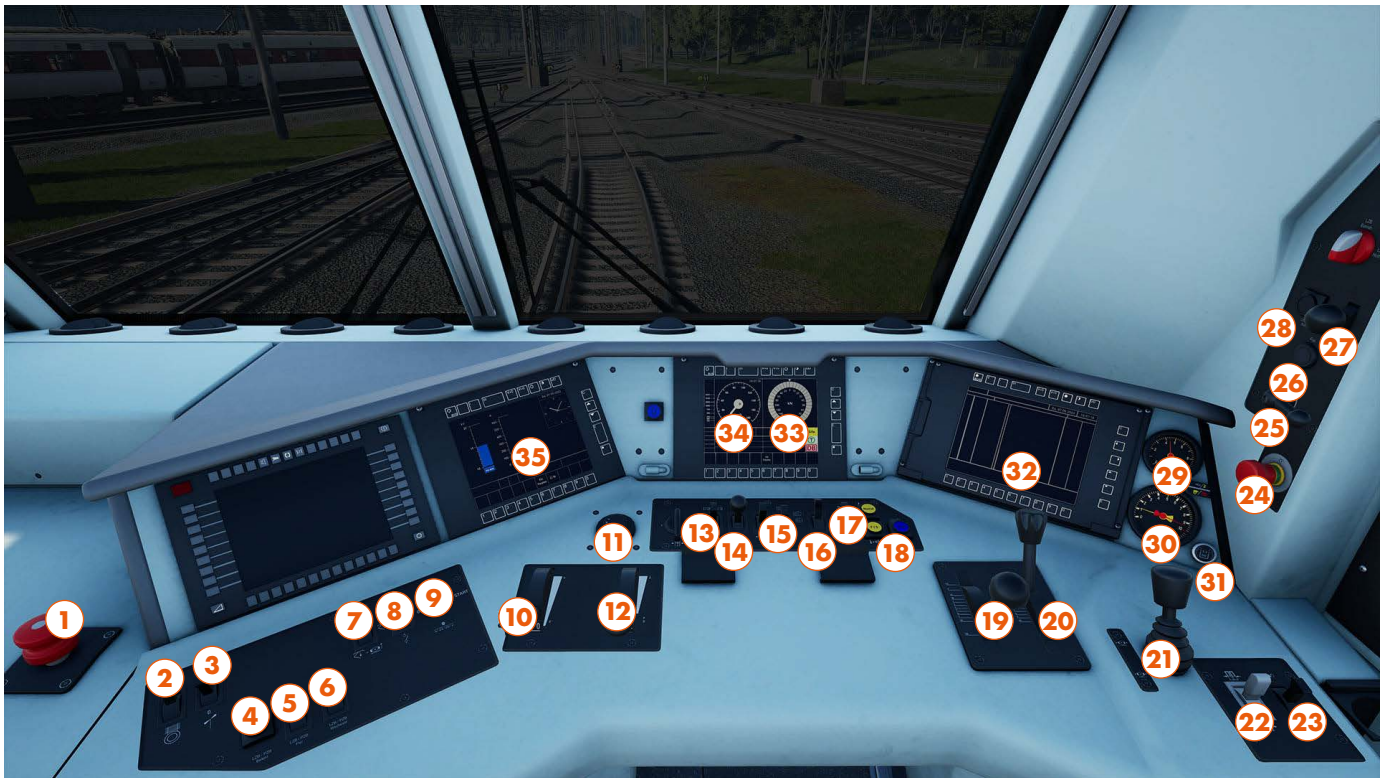


As part of the TRAXX family, the DB BR 146.2 is a key German passenger locomotive used on multiple passenger networks. While not as prolific as other subclasses, the 146.2 has all the same positives as the freight-orientated 185, but with a more appropriate higher speed limit.

Along the lines of Dresden, the BR 146.2 is used on a mix of regional and S-Bahn operations, offering the unique challenge to real and sim drivers alike of frequent stopping, a task which usually belongs to EMUs. However, with Dresden trading frequency for capacity, the slightly slower nature of loco-hauled trains is countered by the double-deck nature of the coaches the 146.2 hauls and pushes.

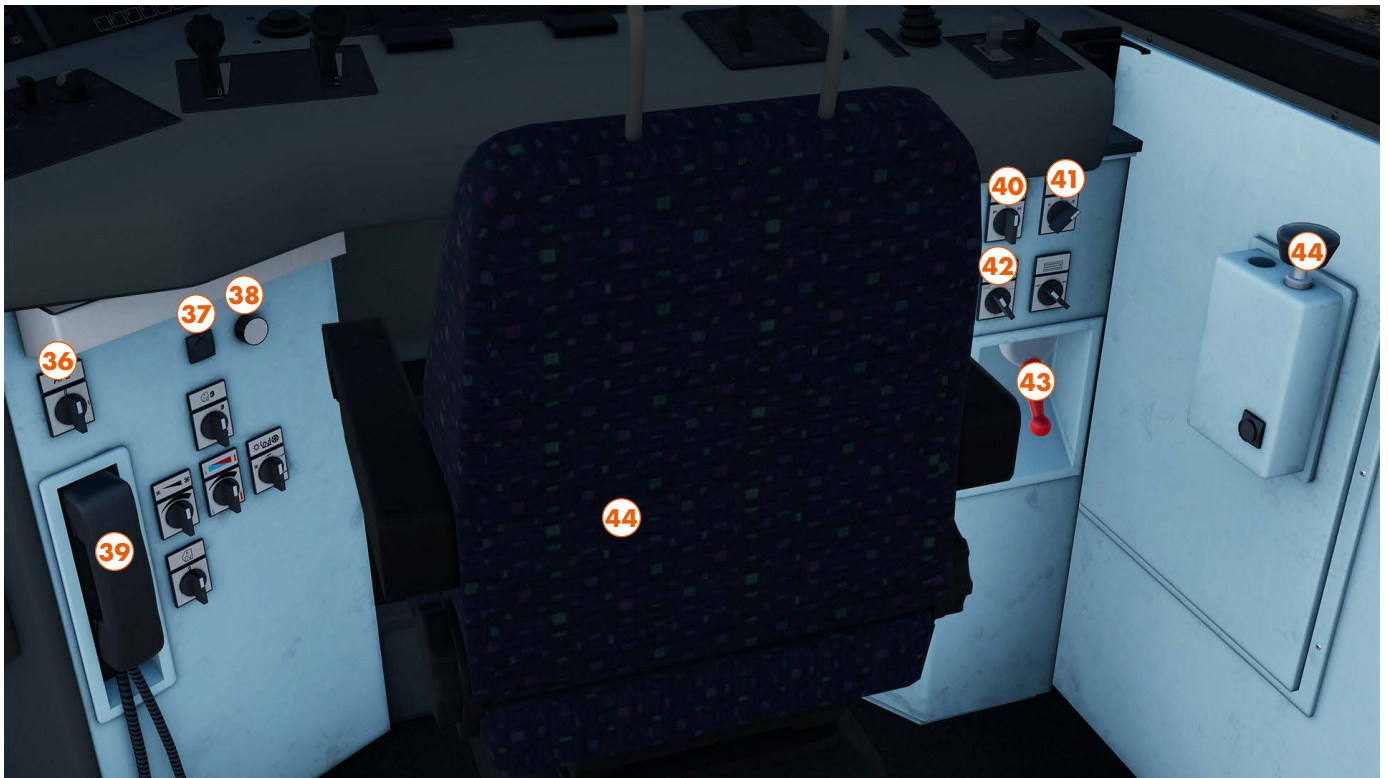
Manufacturer.....	Bombardier Alstom
Build Location.....	Kassel, Germany
Build Date.....	2005-2011
Number Built.....	74 (in total)
Power Type.....	15kV AC OHLE
Variant.....	TRAXX P160 AC2
Power Output.....	7500 horsepower
Length.....	18.9 Metres (62 ft)
Weight.....	84 Metric Tons
Top Speed.....	160 km/h (100mph)

DB BR 146.2 CAB - 1/3



- | | |
|--|---|
| 1 - Emergency Brake Button | 19 - Train Brake Handle |
| 2 - Air Compressor Switch | 20 - Electric Brake Handle |
| 3 - Traction Motor Fan Switch | 21 - Direct Brake Handle |
| 4 - LZB/PZB Override Button | 22 - Passenger Doors Switch |
| 5 - LZB/PZB Release Switch | 23 - Horn Lever |
| 6 - LZB/PZB Acknowledge Switch | 24 - Emergency Pantograph Button |
| 7 - Pantograph Switch | 25 - Shunting Control Switch |
| 8 - Main Circuit Breaker Switch | 26 - LZB/PZB Release Switch |
| 9 - Train Line Power Switch | 27 - LZB/PZB Acknowledge Switch |
| 10 - AFB Speed Handle | 28 - LZB/PZB Override Button |
| 11 - Reverser Handle | 29 - Direct Brake Gauge |
| 12 - Throttle Handle | 30 - Train Brake Gauge |
| 13 - Sand Switch | 31 - Brake Overcharge Button |
| 14 - Brake Release Switch | 32 - Right Multi-Function Display |
| 15 - Headlights Switch | 33 - Multi-Function Display (Tractive Effort) |
| 16 - Master & Instrument Lights Switch | 34 - Multi-Function Display (Speedometer) |
| 17 - Cab Lights Switch | 35 - Left Multi-Function Display |
| 18 - High Beam Indicator Button | |

DB BR 146.2 CAB - 2/3



- 36 - AFB Switch
- 37 - Console Lights Button
- 38 - Console Light Dimmer Dial
- 39 - Contact Signaller Phone
- 40 - en/pl Switch
- 41 - PZB Mode Switch
- 42 - Wiper Switch
- 43 - Emergency Brake Valve Handle
- 44 - SIFA Reset (foot pedal behind seat)

DB BR 146.2 CAB - 3/3



- 45 - LZB Breaker Switch
- 46 - PZB Breaker Switch
- 47 - SIFA Breaker Switch
- 48 - Signal Lights Switch
- 49 - Parking Brake Apply Button
- 50 - Parking Brake Release Button
- 51 - Battery Button
- 52 - Brake Selector Switch
- 53 - Pantograph Selector Switch
- 54 - Driver's Brake Valve Button
- 55 - NBÜ/EP Switch

DB BR 146.2 - PROCEDURES & UNIQUE FEATURES

Light Setup

- As can be common on a lot of German locomotives, the DB BR 146's headlight setup has an additional switch on the back wall which determines what state the lights should be in, the controls on the front of the desk merely control modes such as brightness
- There is also the Master and Instrument Lights switch, this controls all lighting on the whole locomotive, so must be set to On in order for any headlight settings to function

Brake Controls

- The DB BR 146 features 3 handles on the driver's desk, the 2 that are side by side are the Train Brake and Electric Brake
- When you want to decelerate, but not stop the train, you can use the Electric Brake independently, this will be able to efficiently reduce speed, but such brakes are not designed to stop the train
- Should you need to stop, you should use the Train Brake, this is interlocked with the Electric Brake to provided a blended braking action, so you will see both handles move in unison
- The rightmost handle is the Direct Brake, this only applies brakes on the locomotive and should only be used in light loco situations
- The Direct Brake is a lapped brake, meaning you must hold it in the apply or release position to change brake force, and hold it in the middle to maintain that force - it is not a sprung brake, you must move it in all directions manually

Changing PZB Mode

- Make sure that the locomotive is stationary, PZB is not in restrictive mode and the penalty brake is not applied
- Set the desired PZB Mode by moving the PZB Mode Switch to "U", "M" or "O"
- If the total BrH (braked weight percentage) is less than or equal to 65, set the PZB Mode to "U", if the BrH exceeds 65 but is less than 111, set the PZB Mode to "M", otherwise set the PZB Mode to "O"
- In Timetable Mode, the correct PZB Mode for your train should be automatically selected

Setting AFB - Stationary

- Enabling AFB while stationary is straightforward
- Turn on AFB using the AFB Switch, the loco will acknowledge this with an audible alert
- Use the AFB Speed Handle to select what speed you want to maintain, and set enough throttle to reach and maintain it
- While on the move, simply move the handle to a new speed and AFB will follow if enough throttle is applied, although it is best practice to not rely on it for braking, you should set the throttle to 0 and use manual braking

Setting AFB - On the Move

- While on the move, set the Throttle to 0 so no power is being applied
- Move the AFB Speed Handle all the way to maximum speed
- Turn on AFB using the AFB Switch, the loco will acknowledge this with an audible alert
- Use the AFB Speed Handle to select what speed you want to maintain, and reapply enough power to maintain it

DB 766 DABpbzfa



The fourth generation of Doppelstock, also known as Dostos, are a common sight across Germany and even beyond. Available in multiple interior configurations, the Dostos used on the Dresden network are mainly used for S-Bahn traffic, and so do not feature creature comforts such as First Class. What Dostos do offer though, naturally, is capacity in a compact package, a window-laden upper deck provides ample seating for even the busiest of rush hour services, all while offering heightened views of the landscape. Dostos are also used on regional services, and so do frequent away from the commuter area and out to Riesa.

Capable of being part of both long and short trains, and able to be powered on the rear end by many locomotives, the Dosto cab car in its various forms can be realistically experienced on most routes in Train Sim World.

Manufacturer.....	Bombardier
Build Location.....	Hennigsdorf, Germany
Build Date.....	1997-2008
Number Built.....	55 Cab Cars (766)
Capacity.....	1146 Passengers Total
Top Speed.....	100mph (160 km/h)

DB 766 DABpbzfa CAB - 1/2



- | | |
|---|--|
| 1 - Contact Signaller Phone | 18 - Brake Release Switch |
| 2 - Air Compressor Switch | 19 - Headlights Brightness Switch |
| 3 - Traction Motor Fan Switch | 20 - Headlights and Instrument Lights Switch |
| 4 - PZB Override Button | 21 - Cab and Desk Lights Switch |
| 5 - PZB Release Switch | 22 - High Beam Indicator Button |
| 6 - PZB Acknowledge Switch | 23 - Train Brake Handle |
| 7 - Pantograph Switch | 24 - Electric Brake Handle |
| 8 - Main Circuit Breaker Switch | 25 - Brake Overcharge Button |
| 9 - Train Line Power Switch | 26 - Brake Key |
| 10 - Left Multi-Function Display (MFD) | 27 - Direct Brake Handle |
| 11 - Reverser Handle | 28 - LZB/PZB Override Button |
| 12 - Throttle Handle | 29 - Destination Selector |
| 13 - Multi-Function Display (Tractive Effort) | 30 - Train Brake Gauges |
| 14 - Multi-Function Display (Speedometer) | 31 - Wipers Switch |
| 15 - Door Side Selector Switch | 32 - Emergency Brake Valve |
| 16 - Train Lights Switch | 33 - SIFA Pedal |
| 17 - Sander Switch | |

DB 766 DABpbzfa CAB - 2/2



- 34 - Signal Lights Switch
- 35 - SIFA Isolation Switch
- 36 - Battery Switch
- 37 - Battery Voltage Indicator
- 38 - PZB Isolation Breaker
- 39 - Shunting Controls

DB 766 DABpbzfa - PROCEDURES & UNIQUE FEATURES

Train Setup

- To enable the train brakes, you must first ensure that the Brake Key has been turned on to cut them in
- Much like in some locomotives, headlight control is governed by 2 separate switches, the switch on the back wall determines if the cab car should be showing headlights or taillights, the switch on the main desk only controls the brightness of the headlights

Traction Interlock

- Whereas in most trains, the best driving practice involves applying power before releasing the brakes, when driving from the Dosto cab this is not applicable, you must set the brakes to Running, and let them release, before you are able to apply power, applying power too soon will have no affect as your train will still be interlocked

Other Bits & Bobs

- The Dosto cab does not have its own external door, so to reach it from on foot, you will need to enter the train through the passenger doors, don't forget to close them behind you before making your way into the cab through the internal central door
- Remember that performance and characteristics will vary depending on what locomotive is pushing from behind, a modern BR 146 will behave differently to a BR 143, and you should also remain within their limits, do not exceed 120 km/h with a BR 143 on the rear etc
- The cab car has no form of AFB, Tempomat or speed selection, even if the locomotives do, so you will be fully under manual control when driving from the Dosto!

MRCE BR 185.5

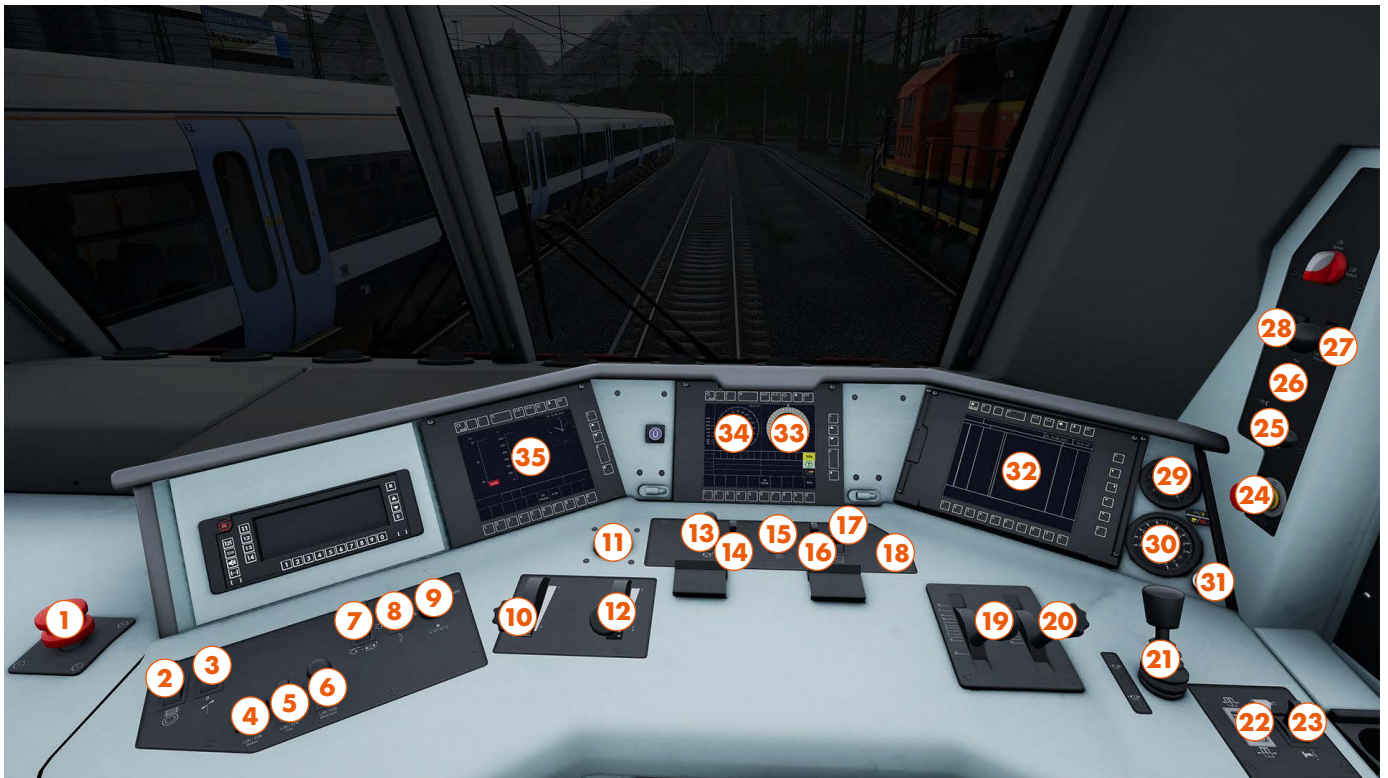


As part of the TRAXX family, the DB BR 185 is one of Germany's prime freight locomotives, used throughout the country to haul all manner of goods. Hundreds have been built since the order was first placed in the late 1990s, making them a common sight. Unlike most rail companies which directly own and operate their stock, MRCE are a leasing company providing additional motive power capacity when and where it is needed.

With a diverse catalogue at their disposal, of course MRCE have BR 185 power on-tap should freight companies need it, in the form of the 185.5 variant, adorning a subtle shade of black, as opposed to the more frequently seen DB red on so many other TRAXX family locos.

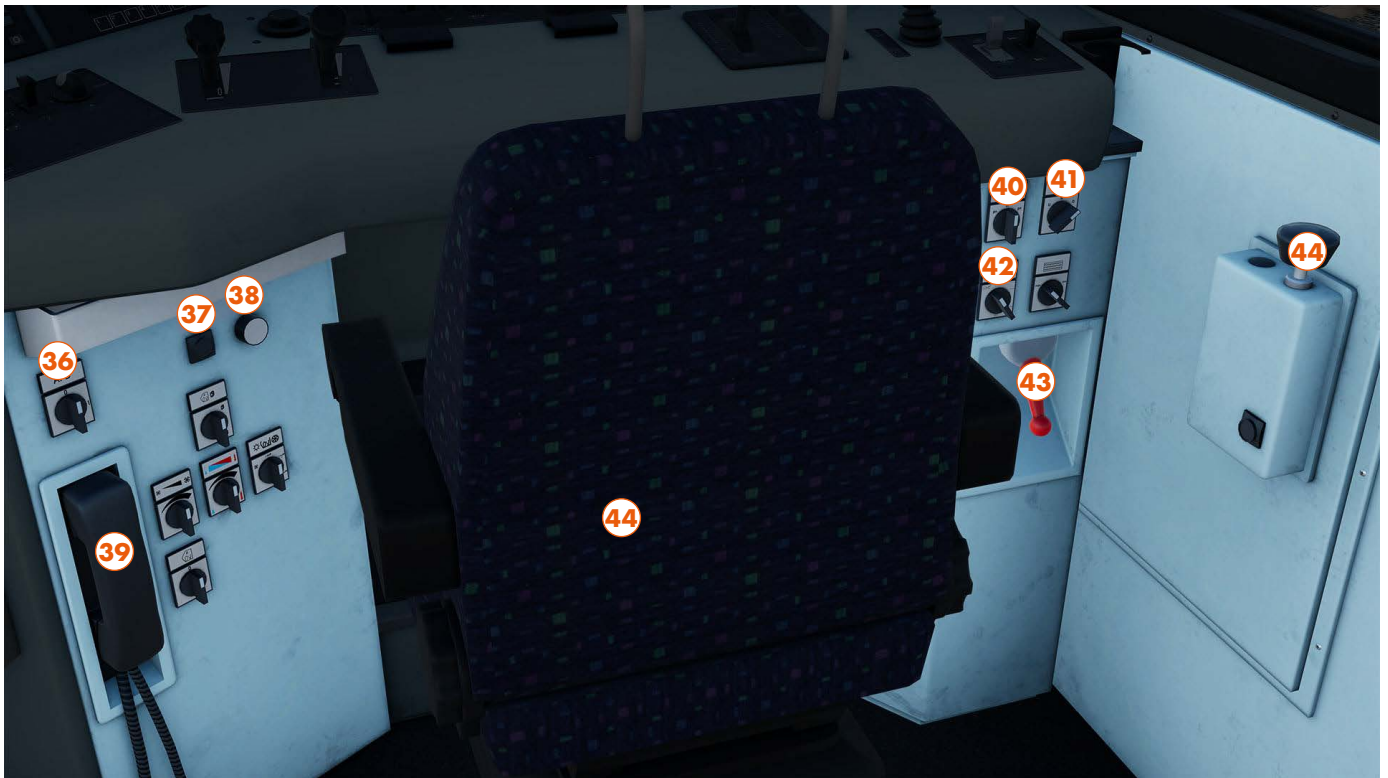
Manufacturer.....	Bombardier Alstom
Build Location.....	Kassel, Germany
Build Date.....	1999-2006
Number Built.....	57 (in total)
Power Type.....	15kV AC OHLE
Variant.....	TRAXX F140 AC
Power Output.....	7500 horsepower
Length.....	18.9 Metres (62 ft)
Weight.....	84 Metric Tons
Top Speed.....	140km/h (87mph)

MRCE BR 185.5 CAB - 1/3



- | | |
|--|---|
| 1 - Emergency Brake Button | 19 - Train Brake Handle |
| 2 - Air Compressor Switch | 20 - Electric Brake Handle |
| 3 - Traction Motor Fan Switch | 21 - Direct Brake Handle |
| 4 - LZB/PZB Override Button | 22 - Passenger Doors Switch |
| 5 - LZB/PZB Release Switch | 23 - Horn Lever |
| 6 - LZB/PZB Acknowledge Switch | 24 - Emergency Pantograph Button |
| 7 - Pantograph Switch | 25 - Shunting Control Switch |
| 8 - Main Circuit Breaker Switch | 26 - LZB/PZB Release Switch |
| 9 - Train Line Power Switch | 27 - LZB/PZB Acknowledge Switch |
| 10 - AFB Speed Handle | 28 - LZB/PZB Override Button |
| 11 - Reverser Handle | 29 - Direct Brake Gauge |
| 12 - Throttle Handle | 30 - Train Brake Gauge |
| 13 - Sand Switch | 31 - Brake Overcharge Button |
| 14 - Brake Release Switch | 32 - Right Multi-Function Display |
| 15 - Headlights Switch | 33 - Multi-Function Display (Tractive Effort) |
| 16 - Master & Instrument Lights Switch | 34 - Multi-Function Display (Speedometer) |
| 17 - Cab Lights Switch | 35 - Left Multi-Function Display |
| 18 - High Beam Indicator Button | |

MRCE BR 185.5 CAB - 2/3



- 36 - AFB Switch
- 37 - Console Lights Button
- 38 - Console Light Dimmer Dial
- 39 - Contact Signaller Phone
- 40 - en/pl Switch
- 41 - PZB Mode Switch
- 42 - Wiper Switch
- 43 - Emergency Brake Valve Handle
- 44 - SIFA Reset (foot pedal behind seat)

MRCE BR 185.5 CAB - 3/3



- 45 - LZB Breaker Switch
- 46 - PZB Breaker Switch
- 47 - SIFA Breaker Switch
- 48 - Signal Lights Switch
- 49 - Parking Brake Apply Button
- 50 - Parking Brake Release Button
- 51 - Battery Button
- 52 - Brake Selector Switch
- 53 - Pantograph Selector Switch
- 54 - Driver's Brake Valve Button
- 55 - NBÜ/EP Switch

MRCE BR 185.5 - PROCEDURES & UNIQUE FEATURES

Light Setup

- As can be common on a lot of German locomotives, the DB BR 185's headlight setup has an additional switch on the back wall which determines what state the lights should be in, the controls on the front of the desk merely control modes such as brightness
- There is also the Master and Instrument Lights switch, this controls all lighting on the whole locomotive, so must be set to On in order for any headlight settings to function

Brake Controls

- The DB BR 185 features 3 handles on the driver's desk, the 2 that are side by side are the Train Brake and Electric Brake
- When you want to decelerate, but not stop the train, you can use the Electric Brake independently, this will be able to efficiently reduce speed, but such brakes are not designed to stop the train
- Should you need to stop, you should use the Train Brake, this is interlocked with the Electric Brake to provide a blended braking action, so you will see both handles move in unison
- The rightmost handle is the Direct Brake, this only applies brakes on the locomotive and should only be used in light loco situations
- The Direct Brake is a lapped brake, meaning you must hold it in the apply or release position to change brake force, and hold it in the middle to maintain that force - it is not a sprung brake, you must move it in all directions manually

Changing PZB Mode

- Make sure that the locomotive is stationary, PZB is not in restrictive mode and the penalty brake is not applied
- Set the desired PZB Mode by moving the PZB Mode Switch to "U", "M" or "O"
- If the total BrH (braked weight percentage) is less than or equal to 65, set the PZB Mode to "U", if the BrH exceeds 65 but is less than 111, set the PZB Mode to "M", otherwise set the PZB Mode to "O"
- In Timetable Mode, the correct PZB Mode for your train should be automatically selected

Setting AFB - Stationary

- Enabling AFB while stationary is straightforward
- Turn on AFB using the AFB Switch, the loco will acknowledge this with an audible alert
- Use the AFB Speed Handle to select what speed you want to maintain, and set enough throttle to reach and maintain it
- While on the move, simply move the handle to a new speed and AFB will follow if enough throttle is applied, although it is best practice to not rely on it for braking, you should set the throttle to 0 and use manual braking

Setting AFB - On the Move

- While on the move, set the Throttle to 0 so no power is being applied
- Move the AFB Speed Handle all the way to maximum speed
- Turn on AFB using the AFB Switch, the loco will acknowledge this with an audible alert
- Use the AFB Speed Handle to select what speed you want to maintain, and reapply enough power to maintain it

DB BR 363

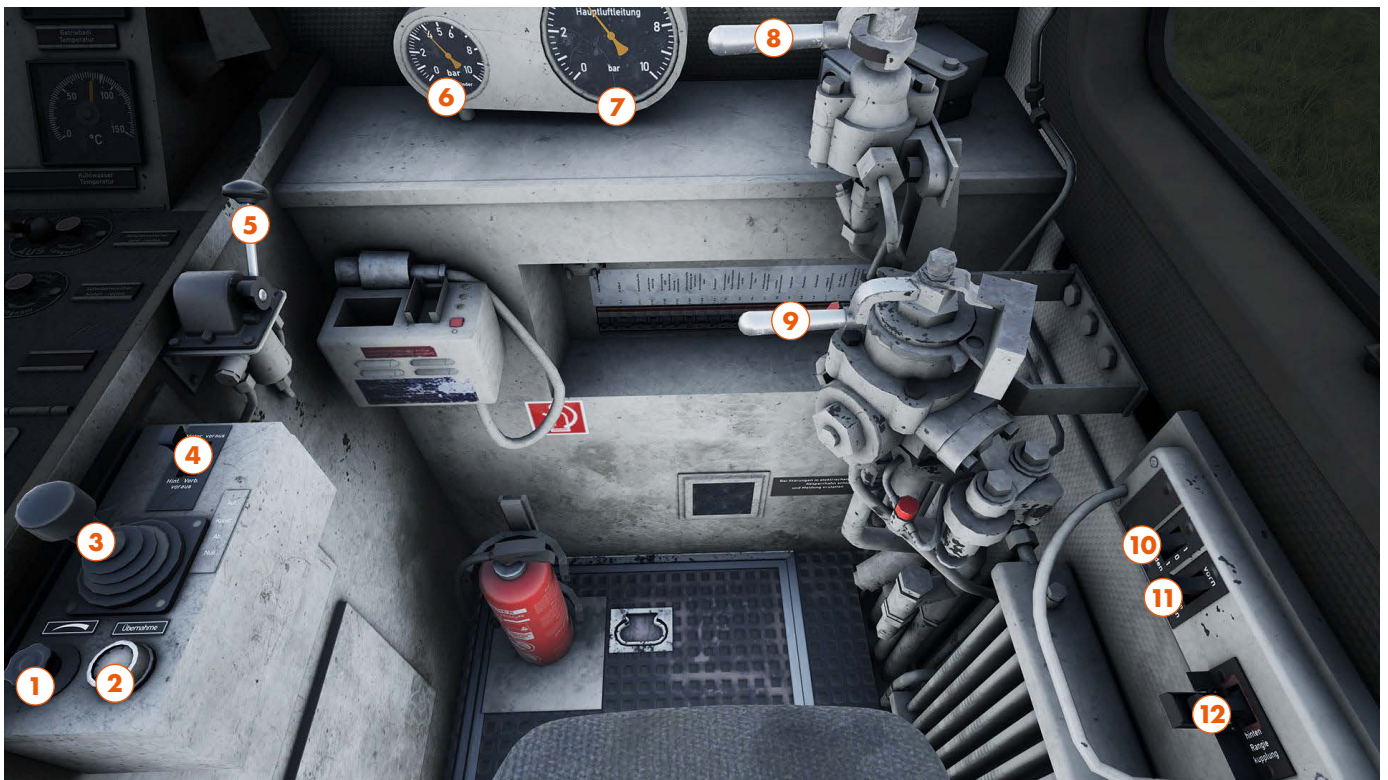


Known long ago as the DB Class V 60, the BR 363 originated from the 1950s as a new standard small shunter design for use in yards, sidings and even on light freight and passenger work on branchlines across Germany. In the fleet's production phase, many changes would be undertaken to alter their characteristics, including giving some stronger, heavier frames, increasing the shunter's overall tractive effort for the hardest of freight-shifting tasks. Out of the 900+ locomotives built, 319 were the "heavy" variant.

Through various rounds of reclassification, its the BR 363 which today is part of the pool of heavy shunters, and despite their age, many remain in active service. Some have been sent to private railways and even to other countries, but they still see use in Germany, even still sporting the older DB blue livery.

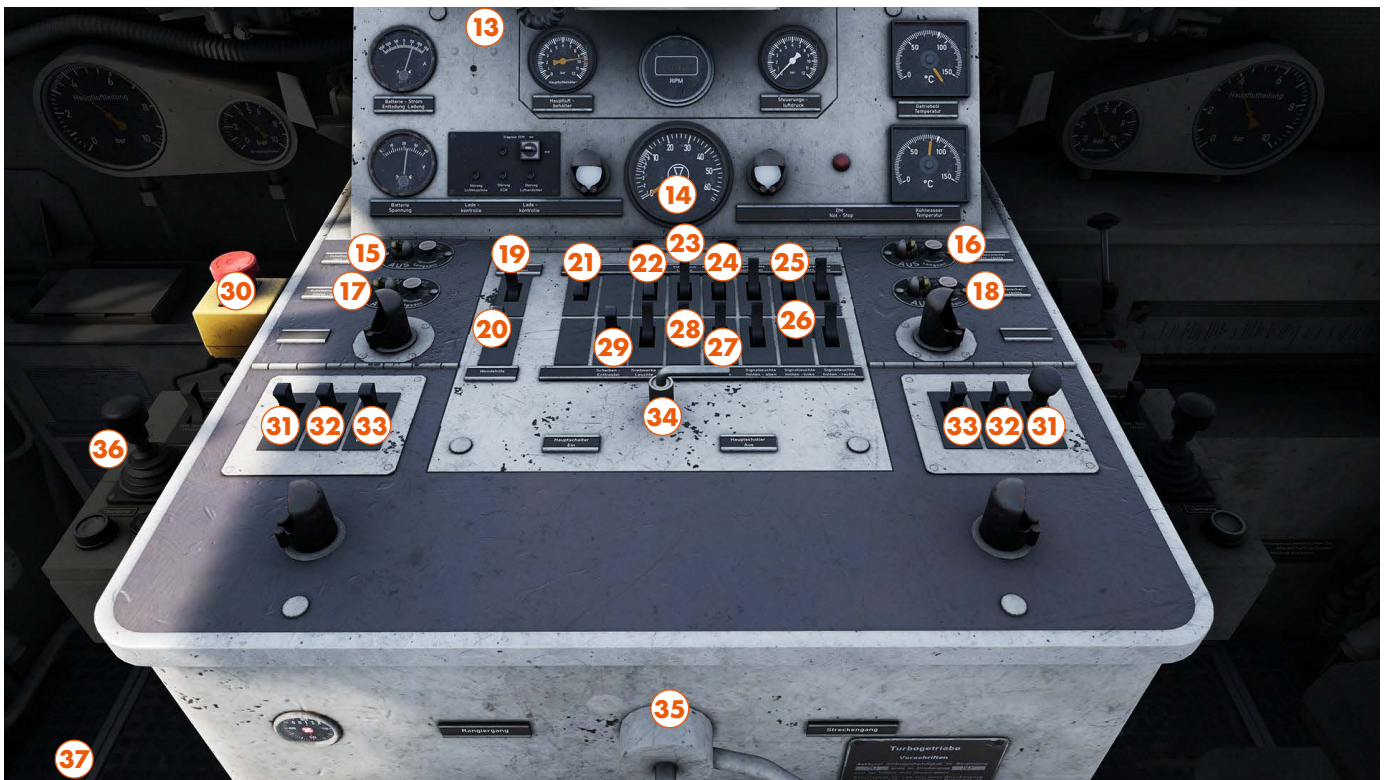
Manufacturer.....	Mak, Krupp, Henschel & Others
Build Location.....	Multiple in Germany
Build Date.....	1956-1964
Number Built.....	942 locos (all V60s)
Transmission.....	Hydraulic
Prime Mover.....	Caterpillar 12-cylinder
Power Output.....	640 horsepower
Length.....	10.45 Metres (34 ft)
Weight.....	53 Metric Tons
Top Speed.....	60 km/h (37 mph)

DB BR 363 CAB - 1/2



- 1 - Changeover Dimmer Switch
- 2 - Changeover Button
- 3 - Throttle Lever
- 4 - Reverser
- 5 - Fine Control Valve
- 6 - Brake Cylinder Gauge
- 7 - Brake Pipe Gauge
- 8 - Direct Brake Handle
- 9 - Train Brake Handle
- 10 - Sand Switch
- 11 - Horn Switch
- 12 - Uncouple Switch

DB BR 363 CAB - 2/2



- 13 - PZB Breaker Cover & Switch
- 14 - Speedometer
- 15 - Front Left Wiper Controls
- 16 - Front Right Wiper Controls
- 17 - Rear Left Wiper Controls
- 18 - Rear Right Wiper Controls
- 19 - Engine Start Switch
- 20 - Engine Stop Switch
- 21 - Fuel Pump Switch
- 22 - Power Switch
- 23 - Cab Light Switch
- 24 - Engine Room Light Switch
- 25 - Front Headlight Switches

- 26 - Rear Headlight Switches
- 27 - Stem Lights Switch
- 28 - Instrument Lights Switch
- 29 - Engine Light Switch
- 30 - Emergency Stop Plunger
- 31 - PZB Acknowledge
- 32 - PZB Release
- 33 - PZB Override
- 34 - Master Key
- 35 - Gear Selector Handle
- 36 - Mirrored Cab Controls
- 37 - (Right Cab Door) Handbrake Wheel

DB BR 363 - PROCEDURES & UNIQUE FEATURES

Cab Changeover

- One unique feature of the BR 363 is its duplicated driving controls on each side of the cab, however, only one side can be actively controlling the train at any given time
- Whichever side you sit down on, and after turning the master key, you must press the Changeover button to activate the controls on your side of the cab
- If you get in and out the cab a lot and cannot recall which side was last used, the active side's Changeover button should be illuminated

Throttle Control

- Unlike most trains, where the throttle sets a certain percentage of power or even a desired speed, the throttle in the BR 363 acts like a sprung lapped brake control
- There are multiple positions; Idle, Run Down, Hold and Increasing
- You must hold the throttle in the Increasing position to gain RPM, once you have achieved the desired RPM, you move the throttle back into the Hold position, equally to reduce power, you hold the throttle in the Run Down position, or bring it all the way back to Idle

Brake Control

- The BR 363 also features a lapped braking control, as having fine control over your speed in shunting circumstances is essential for safely buffering up to rolling stock
- To operate these, you will need to move the Train Brake handle in the Service Apply position, then move it back into Lap once the desired brake force has been achieved
- Unlike the throttle, and the PBL brakes found on the Class 66, the Train Brake in the 363 is not sprung, so you need to manually return it to the lapped position, otherwise a full application will take place

Gear Selector

- The BR 363 has a gear selector on the central desk, this sets the locomotive up either for shunting or long distance use by altering the gear ratio of the hydraulic transmission
- Long Distance will allow you to reach a top speed of 60 km/h, at the expense of some tractive effort
- Shunting will trade speed for power, you will be limited to 30 km/h but be able to haul heavier trains
- Naturally, the mode should be switched to Long Distance on the mainline, and in Shunting when assembling or disassembling trains in yards
- The train must be stationary to switch between gear modes

Overspeed protection

- To avoid overloading the gear transmission and cause damage to the locomotive, there is an automatic built-in overspeed protection, which catches the train if running faster than it should be
- If you are in Long distance mode, the protection will kick in above 60 km/h
- If you are in Shunting mode, the protection will kick in above 30 km/h
- The protection cuts engine power and applies a full emergency brake application, and then automatically releases the brake once back and re-applies power once back under a safe speed - note this can be quite jarring when travelling as a light loco!

RAILPOOL BR 193 VECTRON



Perhaps the most iconic and recognisable modern locomotive in recent European history, the Siemens Vectron is a beloved locomotive family by crew and enthusiasts alike, and has made itself known in many countries thanks to the number of companies which operate them. Developed from the already successful Europrinter and Eurodual locomotives, the Vectron is an all-new and adaptable platform which can be offered in electric, dual-mode and multi-system configurations.

For companies in Germany, many of their Vectrons are classified as the BR 193, including the fleet owned and leased out by Railpool, who's growing fleet enabled them to quickly offer additional motive power where it is needed, regardless of the borders the cargo may need to cross. Whether weaving through the complex network of Dresden, or bolting its way between borders on Vorarlberg, the BR 193 is capable, powerful and a very much loved computer on rails!

Manufacturer.....	Siemens Mobility
Build Location.....	Munich, Germany
Build Date.....	2010-Present
Number Built.....	30+ and growing (Railpool)
Total Ordered.....	Over 1500+ locos
Power Type.....	15 kV and 25 kV, AC and DC
Variant.....	Multi-System
Power Output.....	8600 horsepower
Length.....	18.9 Metres (62 ft)
Weight.....	90 Metric Tons
Top Speed.....	200km/h (125mph)

RAILPOOL BR 193 VECTRON CAB - 1/3



- 1 - Contact Signaller Phone
- 2 - Emergency Brake Button
- 3 - Air-Con Speed Switch
- 4 - Air-Con Temperature Switch
- 5 - Air-Con Mode Switch
- 6 - LZB/PZB Override Switch
- 7 - LZB/PZB Release Switch
- 8 - LZB/PZB Acknowledge Switch
- 9 - Pantograph Switch
- 10 - Main Circuit Breaker Switch
- 11 - Train Line Switch
- 12 - Technical and Diagnostic Display (TDD)
- 13 - Hazard Lights Button
- 14 - LZB Instrument Dimmer Button
- 15 - LZB Emergency Stop Switch
- 16 - AFB Handle (Confirm Set Speed on top)
- 17 - Throttle Handle (Train length on top)
- 18 - Left Doors Open button
- 19 - Doors Close Button
- 20 - Right Doors Open Button

RAILPOOL BR 193 VECTRON CAB - 2/3



- | | |
|--|---------------------------------|
| 21 - Central Multi-Function Display* | 30 - Train Brake Handle |
| 22 - Sand Switch | 31 - Forward Button |
| 23 - Brake Release Switch | 32 - Neutral Button |
| 24 - Headlights Switch | 33 - Reverse Button |
| 25 - Cab/Reading Light Switch | 34 - Train Brake Cut-Out Button |
| 26 - Control Command Display (Speedometer) | 35 - Master Key |
| 27 - CCD (Tractive Effort) | 36 - Direct Brake Handle |
| 28 - Air Compressor Switch | 37 - Horn Lever |
| 29 - Brake Pipe Overcharge Button | 38 - Wiper Switch |

The default display configuration for Railpool Vectrons shows the CCD screen on the right-hand side of the cab, if you want to change what the screens display, you can do this with the arrow softkeys on the top row which look like this <-->

RAILPOOL BR 193 VECTRON CAB - 3/3



- 39 - Cab Window
- 40 - Shunting Controls
- 41 - Reading Light Breaker Switch
- 42 - Horn High Breaker Switch
- 43 - Horn Low Breaker Switch
- 44 - Signal Light Override Switch
- 45 - Parking Brake Apply Button
- 46 - Parking Brake Release Button
- 47 - Battery Button
- 48 - LZB Isolation Switch
- 49 - PZB Isolation Switch
- 50 - SIFA Isolation Switch

RAILPOOL BR 193 VECTRON - PROCEDURES & UNIQUE FEATURES

How to enable AFB

- Make sure that the master key is turned, reverser is in Forward or Reverse, brakes are cut in and the Master Controller is in "Off"
- Press Softkey 9 on the TDD (speedometer indicator) or Cruise Control Toggle keybind

How to set and confirm an AFB target speed

- Ensure that AFB is enabled and the Throttle is not in the dynamic brake range and the Train Brake is in Running
- Move the AFB lever to the desired speed
- Press the AFB Confirm Speed button on the AFB lever to make AFB react to the new target speed
- If the train is stationary, apply at least 10 kN of tractive effort to make the hold brake release

How to change Pantograph and Network

- Open the MCB
- Move the Pantograph rocker switch to "Lower"
- In the TDD, press Softkey 1
- Cycle through the list to the desired network with the up and down arrow Softkeys
- Confirm the network with the E-softkey
- Raise the pantograph
- When allowed, close the MCB

How to change Brakemode

- Make sure that the locomotive is stationary
- In the TDD, press Softkey 8
- Cycle through the menu with the up and down arrow Softkeys until "Bremsart" is highlighted
- Set the desired brake mode by pressing Softkey 1, 2 or 3
- If all the coaches allow brake mode "R" (passenger train) set the brakemode to "R". If not, but the train weight is less than 800 tonnes, set the brakemode to "P" otherwise set the brakemode to "G"

How to change PZB Mode

- Make sure that the locomotive is stationary, PZB is not in restrictive mode and the penalty brake is not applied
- In the TDD, press Softkey 8
- Cycle through the menu with the up and down arrow Softkeys until "PZB Modus" is highlighted
- Set the desired PZB Mode by pressing Softkey 1, 2 or 3
- If the total BrH (braked weight percentage) is less than or equal to 65, set the PZB Mode to "U", if the BrH exceeds 65 but is less than 111, set the PZB Mode to "M", otherwise set the PZB Mode to "O"
- In Timetable Mode, the correct PZB Mode for your train should be automatically selected

How to recover from a Sifa penalty brake application

- Acknowledge the Sifa warning (Alerter reset keybind)
- Momentarily move the Train Brake to the "Quick Release" position

TRAIN SIM WORLD 4 - INCLUDED SCENARIOS



VORARLBERG: Night Change



Take this service into Wolfurt yard. Once there, you will need to pick up another train due to staffing issues and try to return in your allocated time slot.

Duration: 60 Mins



VORARLBERG: Whiteout



Heavy snowfall is causing havoc on the rails, meaning closures and traffic are to be expected

Duration: 40 Mins



VORARLBERG: Die Grosse Tour



Drive this special cultural tour cross country while learning about the route.

Duration: 40 Mins



VORARLBERG: International Rescue



Pilot your train to help out with a stranded unit across the border.

Duration: 45 Mins



VORARLBERG: Go Hard



Downpours and flash floods mean that regular services have been cancelled and the rails have been pulled in to help with evacuation efforts.

Duration: 40 Mins



VORARLBERG: Just Like In The Movies



A film festival is in town and a special train providing a 4D experience for passengers is running to Bludenz.

Duration: 20 Mins



VORARLBERG: Pick Up



Freight will need transporting up and down the line, including lending a hand where possible.

Duration: 60 Mins

INCLUDED SCENARIOS CONTINUED



ANTELOPE: Con Fare



Take part in a special operation involving the transport of a prisoner to a correctional facility in Los Angeles.

Duration: 60 Mins



ANTELOPE: Impossible Mission



A locomotive has broken down outside of Union Station and is now causing a build up of traffic. Complete your service without further delays and then report to the workshop for inspection.

Duration: 45 Mins



ANTELOPE: Blockbuster



Witness explosions and action as you drive a train on a movie set.

Duration: 40 Mins



ANTELOPE: Take a Hike



While approaching the San Gabriel Mountain Range your Shift Supervisor notices a panicked hiker at Santa Clarit and wants you to check on them.

Duration: 90 Mins



ANTELOPE: Home at the Depot



Take over services as they enter the yard and follow the instructions you are given regarding each service.

Duration: 90 Mins



EAST COAST MAIN LINE: Hot Seat



Battle against the effects of a scorching heatwave. Navigate around speed restrictions and line side obstructions whilst you attempt to reach your destination. Think you can take the heat?

Duration: 60 Mins



EAST COAST MAIN LINE: Testing the Limits



Experience the thrills of high-speed as you perform a series of tests with the Class 801

Duration: 70 Mins

INCLUDED SCENARIOS CONTINUED



EAST COAST MAIN LINE: Job Center



Help out with yard work as part of your freight training.

Duration: 50 Mins



EAST COAST MAIN LINE: Limping Off



Drive a Class 801 to the depot under diesel power and prepare a replacement Class 801 for service.

Duration: 35 Mins



EAST COAST MAIN LINE: In Threes



Attempt to get your train to Doncaster whilst battling against the effects of a fierce storm.

Duration: 85 Mins



EAST COAST MAIN LINE: Re-Record



Recreate the famous 100mph speed record of Flying Scotsman on the centenary of the run.

Duration: 90 Mins



EAST COAST MAIN LINE: Winter Wonderland



Operate the special Christmas express service through the snow-covered countryside.

Duration: 90 Mins



EAST COAST MAIN LINE: The Fact Controller



Take enthusiasts on a special tour of the East Coast Main Line, head by one of the world's most famous locomotives.

Duration: 110 Mins



EAST COAST MAIN LINE: Raising the Shed



Perform a rescue whilst operating an afternoon railtour.

Duration: 120 Mins

INCLUDED SCENARIOS CONTINUED



NAHVERKEHR DRESDEN: Pieschen Predicament ■ ■

Take control of an RE50 service and navigate congested traffic caused by an incident near Pieschen, returning the service to Dresden Hbf.

Duration: 30 Mins



NAHVERKEHR DRESDEN: There and Back Again ■ ■ ■

Operate a peak time S1 service from Dresden to Meissen whilst dealing with congested traffic.

Duration: 80 Mins



NAHVERKEHR DRESDEN: Follow the Leader ■ ■ ■

Take control of a diverted RB31 service and travel to Dresden via Radebuel.

Duration: 45 Mins



NAHVERKEHR DRESDEN: Towing the Line ■ ■ ■

Operate a train of locomotives scheduled for inspection to Niederau, whilst avoiding higher priority mainline traffic.

Duration: 40 Mins



NAHVERKEHR DRESDEN: Chemical Plant Zone ■ ■ ■

Operate a BR 185.5 to take both cargo and a shunter to a chemical plant in Nünchritz. Once there, deliver the cargo with the shunter and build your consist for the return journey.

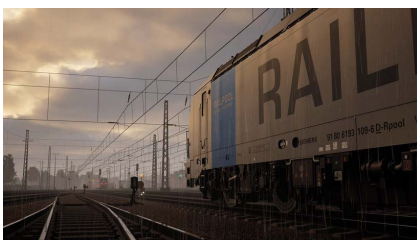
Duration: 60 Mins



NAHVERKEHR DRESDEN: Wrong Road ■ ■ ■

Operate a Regional Express service from Dresden to Riesa whilst dealing with congestion and maintenance on the line.

Duration: 60 Mins



NAHVERKEHR DRESDEN: Dresden Diversion ■ ■

Drive a freight service on a congested railway full of diverted traffic due to a line closure.

Duration: 30 Mins

INCLUDED SCENARIOS CONTINUED



NAHVERKEHR DRESDEN: Ballast Boogie

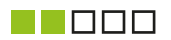


With the Elsterwerda branch closed for maintenance, trains are having to detour to arrive in Riesa.

Duration: 60 Mins



NAHVERKEHR DRESDEN: Special Delivery



After maintenance these Vectrons are ready to be spread throughout the line.

Duration: 40 Mins



NAHVERKEHR DRESDEN: Labouring Home



following Labour Day celebrations in Dresden, take this private railtour as far as Riesa.

Duration: 40 Mins

USEFUL INFORMATION

For any questions or comments, you have, please reach out to us on our forums:

<https://forums.dovetailgames.com/forums/trainsimworld/>

If you are experiencing an issue with Train Sim World 4, please check out our Knowledgebase or submit a support ticket:

<https://dovetailgames.freshdesk.com/support/home>

To catch the latest news, follow us on social media:

Twitter: <https://twitter.com/trainsimworld>

Instagram: <https://www.instagram.com/trainsim/>

Facebook: <https://www.facebook.com/trainsimworld>

Get updates directly by subscribing to our newsletter:

<https://www.trainsimworld.com/>

Or check out Dovetail Live for articles and screenshots:

<https://live.dovetailgames.com/live/train-sim-world/news>

Log In or Create an Account on Dovetail Live to take advantage of Creators Club:

<https://creatorsclub.dovetailgames.com/>

Watch all things Train Sim World on our video platforms:

YouTube: <https://bit.ly/TSW-YouTube>

Twitch: <https://bit.ly/TSW-Twitch>

TikTok: <https://www.tiktok.com/@trainsimworldofficial>





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