

TRAIN SIM WORLD®: MAIN-SPESSART BAHN
DRIVER'S MANUAL





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GAMES

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Contents

Topic	Page
1. An Introduction to the Main-Spessart Railway	4
2. Main-Spessart Bahn Route Map & Key Locations	5
3. The Game Modes: Tutorials, Scenarios & Services	6
4. An Introduction to the DB BR 185.2 Electric Locomotive	7
5. Quick Start Guide: DB BR 185.2.....	7
6. An Introduction to the DB BR 146.2 Electric Locomotive	8
7. Quick Start Guide: DB BR 146.2.....	8
8. Quick Start Guide: DB BR 766.2 DBpbzfa Control Car	9
9. Setting a Destination in the DB BR 146.2 & DB BR 766.2 Control Car	10
10. Reference Section	12
11. Safety Systems – SIFA.....	12
12. Signal Post Plates	13
13. Hv Signalling Quick Reference	14
14. Hv Signalling Overview.....	15
15. More about Distant Signals.....	16
16. Ks Signalling Quick Reference	18
17. Ks Signalling.....	19
18. Safety Systems – PZB Quick Reference	21
19. Safety Systems – PZB Overview	23
20. Passenger Door Controls	28
21. Banking Operations	28
22. Keyboard & Other Controls	30
23. Controlling the Camera & Camera Modes	31
24. Customising the HUD	32
25. Dovetail Live Account	33
26. Troubleshooting Guide & How to Get Support	34

An Introduction to the Main-Spessart Railway

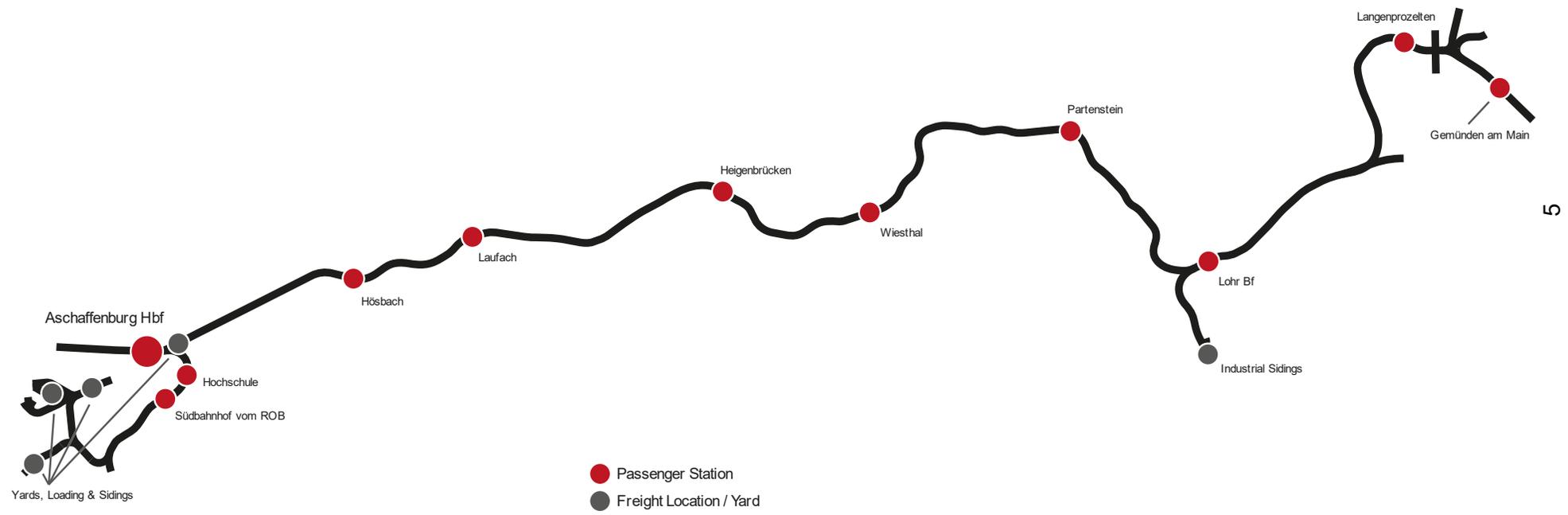


Stretching from Aschaffenburg to Gemünden, the Main-Spessart Bahn is a key railway corridor that has traversed countryside terrain since its opening in 1854, making it one of the oldest railways in Germany. The line is packed with freight throughout, providing an important through connection between Frankfurt and Munich, and sees plenty of passenger traffic climb through its rural, forested hills.

The original path through the Spessart hills involved a steep, winding path between Laufach and Heigenbrücken, which comes in at its maximum around 1:48 (2.1%), such a sudden climb has necessitated use of banking procedures for heavy freight trains for decades. Banking is where a service is assisted up an incline by being pushed by an extra locomotive, the extra horsepower allows for more weight to crest the climb and continue. The banker locomotive is stationed at the base of the climb and returns back down the slope after completing its push.

However, in order to alleviate this procedure, a new tunnel was opened in 2017 that shallows out the overall gradient and shortens the route - Heigenbrücken station also had to be moved to facilitate this modernisation, and the former route has been steadily ripped up ever since.

Main-Spessart Bahn Route Map & Key Locations



The Game Modes

Tutorials

Tutorials give you the knowledge you need to get the most from your locomotives and trains via interactive lessons that teach you key concepts. If you're new to Train Sim World, we recommend you start here to learn the fundamentals.

Scenarios

These provide a selection of operations over the Main-Spessart Bahn route, Scenarios are objective-based activities which provide unique experiences. Move coaches around, drive passenger and freight services and experience some of the operations that occur on this railway.

Services

These provide a host of activities throughout an entire 24-hour time period, Service Mode is a new way to play. There's always something to do with a large variety of services to take control of or ride along with. Sit back and enjoy the action and capture amazing screenshots, hop on or off and ride along with the various services as they go about their duties or take control and carry out the duties yourself. Featuring many individual services, you'll always find something going on.

An Introduction to the DB BR 185.2 & DB BR 146.2 Electric Locomotives



The TRAXX family, which is an acronym for **T**ransnational **R**ailway **A**pplications with **eX**treme **fleX**ibility – could be adapted to suit any duty, on any railway. Freight haulage, passenger use, electric, dual-voltage, diesel, dual-mode – if a railway company needed it, the TRAXX could offer it.

Deutsche Bahn placed an order in 1998 for a total of 400 TRAXX locomotives designed for freight traffic, they were to be used for long-distance, cross-border services and so required dual-voltage equipment. This fleet would be classified as the DB BR 185.2 and was a development of the DB BR 145.

Then, in the early 2000s, an order for 47 passenger locomotives was placed, these would follow in the footsteps of previous designs, such as the 185.2, combined with older passenger variants to provide a modern counterpart, known as the DB BR 146.2. Being passenger-focused, the 146.2 features a higher top speed than the 185.2 and is also equipped with destination board equipment as well as push-pull capability, allowing it to be driven from a control car. A further fleet would be ordered in 2011, bringing the total to over 70 locomotives.

Quick Start Guide: DB BR 185.2

1. Enter the required Cab
2. Engage the Battery by holding it in the On position for 5 seconds
3. Move the reverser to the Neutral position to activate the desk
4. Set the Air Compressor to On
5. Wait for the main reservoir to reach a minimum of 4.8 bar
6. Raise the pantograph

7. Close the MCB
8. Wait for the Brake Pipe pressure to rise



Quick Start Guide: DB BR 146.2

1. Enter the required Cab
2. Engage the Battery by holding it in the On position for 5 seconds
3. Move the reverser to the Neutral position to activate the desk
4. Set the Air Compressor to On
5. Wait for the main reservoir to reach a minimum of 4.8 bar
6. Raise the pantograph
7. Close the MCB
8. Wait for the Brake Pipe pressure to rise

Quick Start Guide: DB BR 766.2 DBpbzfa Control Car



The DBpbzfa control car is an unusual driving position in that the driver is in the end of a passenger coach that has no actual capability to move on its own. Instead, this control car will remotely control the locomotive situated at the other end of the consist.

Before beginning setup procedure for the control car, you should ensure that you have set up the locomotive ready to run and then deactivated its cab (which usually requires simply setting the reverser to Off).

Once the other loco is operational, return to the control car cab:

- Turn on the battery.
- Set tail lights/headlights (switch above the battery).
- Set 'Headlights and Instruments Light' switch to On.
- Set reverser to anything but 'Neutral'.
- Set 'Pantograph' lever to 'Raise'.
- Set 'Circuit Breaker' lever to 'Close'.
- Set 'TrainLinePower' lever to 'Start'.
- Set 'Coach Lights' to On/Off.
- Set 'Brake Key' to On.

As you now operate the throttle control, remember that the signals are being sent to the locomotive at the other end and it is responding to them so the way you will feel the reaction to your inputs will be slightly different and a little delayed.

When you set off from stationary, begin with a small amount of power applied and let it get you moving – once the control car is moving you can then start applying some more power. As you gain more confidence with the control car you will be more confident in when to apply power.

Brakes are applied from the control car itself, so they will react as you would expect if you were driving a locomotive.

Setting a Destination in the DB BR 146.2 & DB BR 766.2 DBpbzfa Control Car

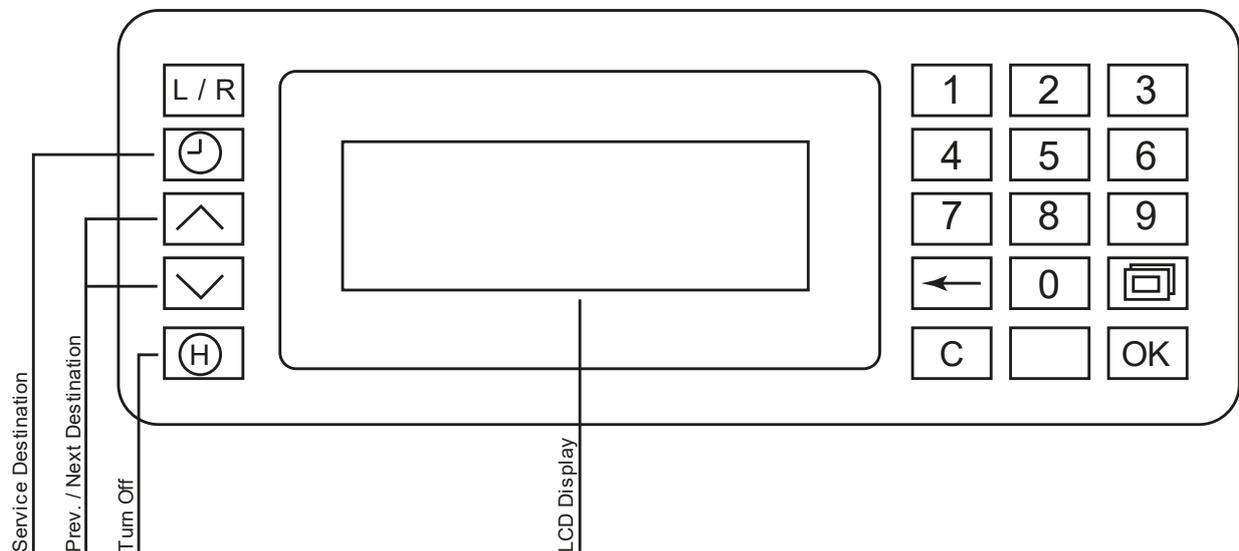
Partial functionality of the FT95 unit has been implemented to permit destinations to be displayed on the external destination displays throughout the consist.

To set a destination, follow the steps below:

1. Locate the FT95 in the cabs of the DB BR 146.2 and DB BR 766.2 DBpbzfa vehicles (see below).
2. Press the up or down arrows to set the destination – the currently displayed destination will display in the LCD display of the FT95 unit.
3. To turn the display off, press the H button in the lower left of the unit.

Auto-Setting a Destination

The FT95 unit is capable of auto-setting a destination, which is based on the terminating station of the service in operation. Simply press the Service Destination button (see below).





▲ The FT95 Unit Location in the DB BR 146.2, and the DB BR 766.2 DBpbzfa Control Car ▼



Reference Section

Safety Systems: SIFA

SIFA is a straightforward Driver Vigilance Device and its purpose is simply to ensure that the driver is constantly aware of the train and is able to react and respond to the train in a timely manner.



Toggling SIFA on the DB BR 185.2 & DB BR 146.2

1. On the keyboard, press Shift-Enter to toggle SIFA
2. On the back wall of the cab there is a "SIFA" breaker switch that can be operated to enable or disable SIFA.



Toggling SIFA on the DB BR 766.2 Control Car

1. On the keyboard, press Shift-Enter to toggle SIFA
2. On the back wall of the cab there is a SIFA toggle switch that can be operated to the "1" position to enable SIFA and the "0" position to disable it.

How to Use SIFA

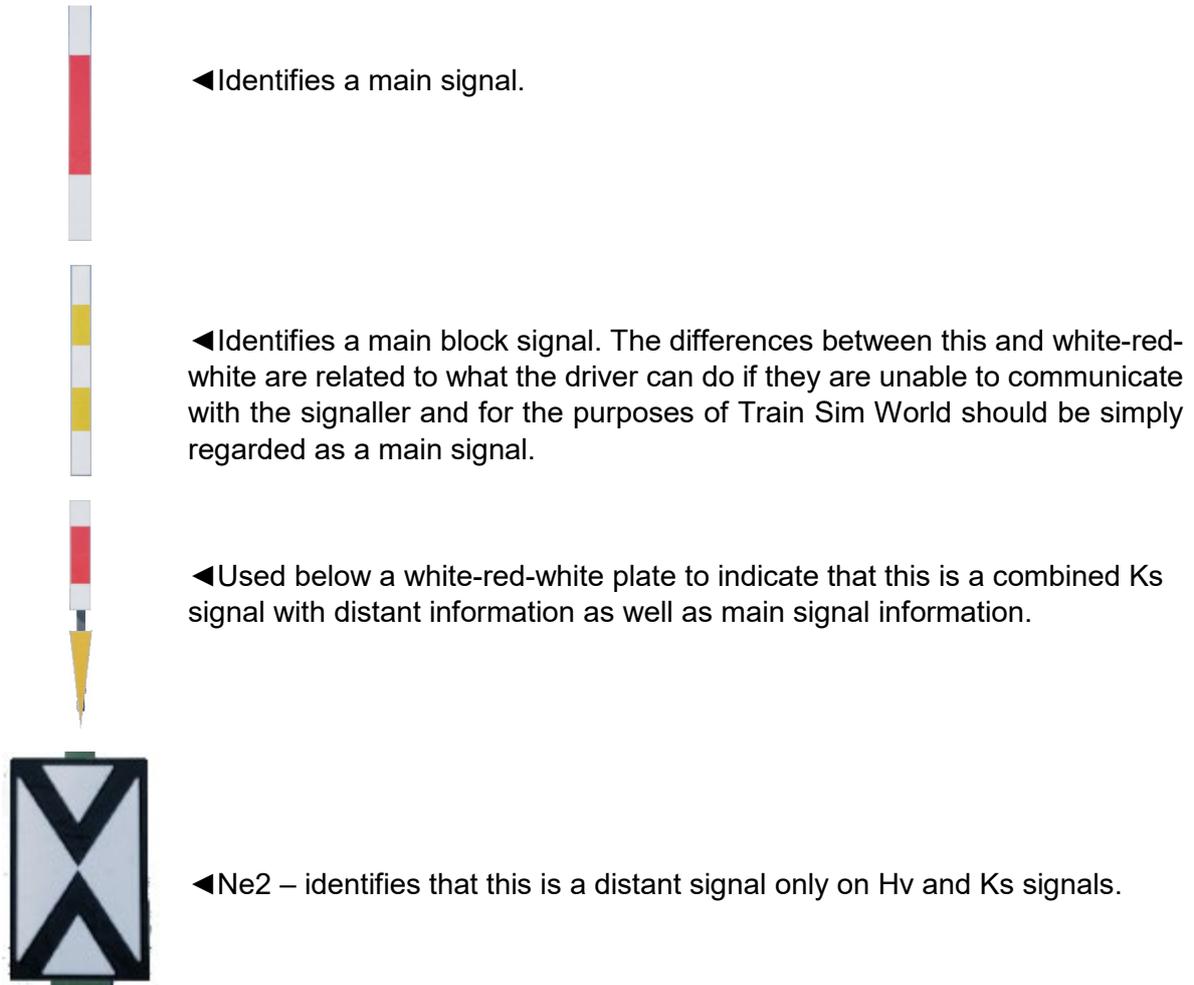
Once activated, and the train is in motion, SIFA will trigger every 30 seconds. When it first triggers it will light the white "SIFA" indicator on the desk / display. If you do not respond to it by pressing the Q key on the keyboard, the B button on the Xbox Controller or the circle button on the PS4 controller, then after 2.5 seconds it will sound an alarm. Once this alarm sounds you have a further 2.5 seconds to acknowledge before the train will apply a full-service application of the brakes.

If you acknowledge after the brakes have applied, it will begin to release the brakes but be aware that it may take some time for them to fully release.

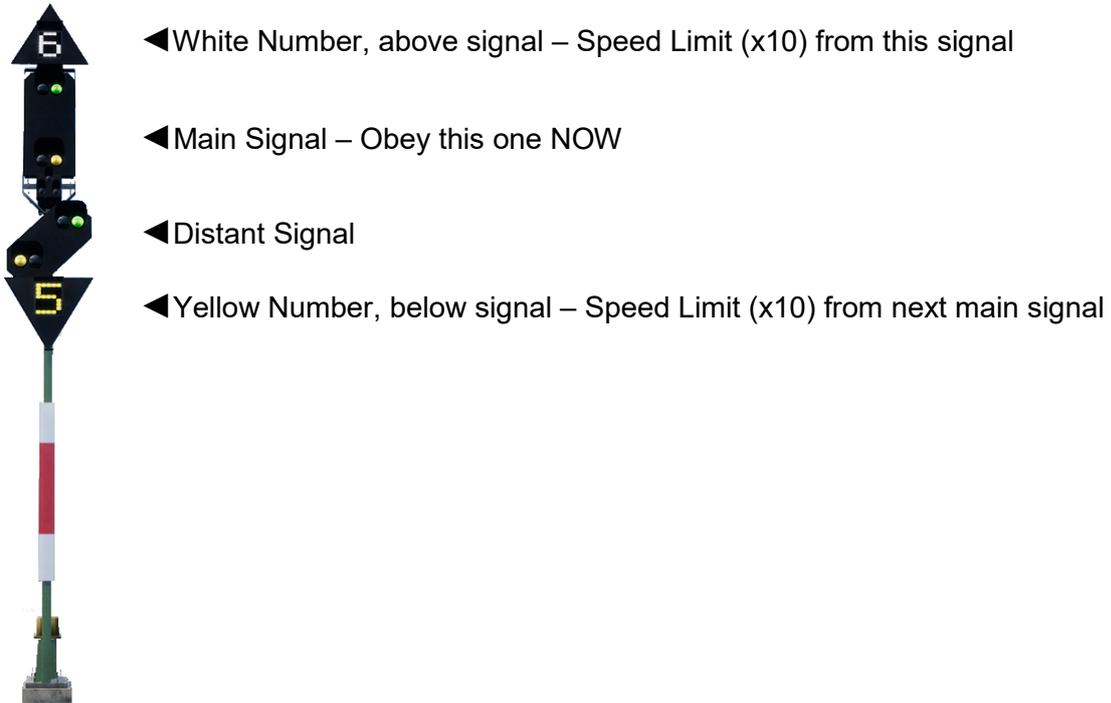
Signal Post Plates

Plates placed below the signal inform the driver as to the nature of the information provided at this signal.

When reading the aspect of a signal it is important to observe the presence of these plates at the same time as they will make it clearer what information is presented and therefore how you should react to it.



Hv Signalling Quick Reference



Main Signal Aspects



◀ **Clear**
Proceed at
line Speed



◀ **Slow
Speed**
Proceed at
reduced
speed



◀ **Stop**
Do not
pass

Distant Signal Aspects



◀ **Expect
Clear**
Expect Clear
at next main
signal



◀ **Expect
Slow**
Expect
reduced
speed at
next main
signal



◀ **Expect
Stop**
Expect stop
at next main
signal

If Expect / Proceed at Reduced Speed is indicated without any white/yellow speed indicators, assume 40 km/h

Hv Signalling Overview

Hv Signals are easy to interpret once you understand how they are structured. There are essentially a small number of signal heads that are shown on a single post and you can learn to understand each one and then build up the picture of the entire message you're seeing piece by piece.

At the top of the Hv Quick Reference guide there is an example signal post showing four of these components in one head.

You may find other signal posts that do not have all of these, so they may only have a main, or main plus white number, or main plus distant etc. The principals and the way you interpret them are the same except that if there are signal components not present then the signal is not telling you anything about those elements.



The white number at the top of the signal tells you what the speed limit is from this signal. If it reads 6, as in this example, the speed limit is 60km/h and should be followed from this signal.

This is the main signal, this is the aspect you should obey immediately, so if this signal is showing RED then you cannot pass it without permission from the despatcher. The signal head demonstrated is showing a reduced speed, which is paired with the white "6" in relation to a speed restriction in place from this signal.

Next, is the distant signal. It will either be in this style, or in a small rectangular "compact" style. Its job is to give you information about the NEXT signal, so it will never show you a red – but if it shows two yellow's then you know for sure you've got a red coming up. In this example, it's warning that the NEXT signal also has a speed restriction and is paired with the yellow number to indicate what the limit is.

The yellow number, if present, indicates the speed restriction in place at the NEXT signal. If it is NOT present but a yellow/green aspect is shown on the distant head, then you should always assume 40km/h.

More About Distant Signals

There are some additional wrinkles to be aware of with regards to Distant Signals.

If a signal only contains the Distant signal head, then there are still several different things it could be telling you – but you should be very aware of the differences as they will impact how you react to them.

If the diagonal distant signal has a white light, and the signal has no main aspect and no Ne2 white board – the signal is a repeater and telling you about a following distant signal.

If the diagonal distant signal has a white light and is on the same post with a main signal OR there is a Ne2 white board, this signal is a full distant and is warning you that the following main signal is closer than you would normally expect.

Here are some examples:



◀ This is a standard distant signal. Note the presence of the so-called “Ne2” board – a white board with two triangles touching, it looks almost like it has a cross. This signal is telling you about the state of the next main signal.

PZB: You must acknowledge this signal.



◀ This is a variation on the example signal. In this case, the distant works exactly the same except that the presence of the white light tells you that the next main signal is closer to the distant than normal so you will need to react more promptly.

PZB: You must acknowledge this signal.



◀ In this variation, we have just a distant signal and it has a white light. The presence of the Ne2 white board means this is an actual distant and the white light tells us that the following main signal is closer than it would normally be.

PZB: You must acknowledge this if the aspect requires it.



◀ This variation is slightly different again, note that there is no Ne2 white board. This, combined with the white light, means that this is a repeater and is used to provide additional sight of a following distant signal.

PZB: You must acknowledge, but PZB protection is rarely provided at repeaters.

Ks Signalling Quick Reference



- ◀ White Number, above signal – Speed Limit (x10) from this signal
- ◀ Signal Aspect – presence of post plates will determine if this shows Main and/or Distant aspects. Some aspects have a flashing green light, some have a static green light.
- ◀ Yellow Number, below signal – Speed Limit (x10) from next main signal
- ◀ Post plates, in this case the white-red-white board tells us the signal is a main signal and the yellow triangle tells us the signal also presents distant information.

Signal Aspects



◀ Main: Clear



◀ Main: Clear

(Distant: Expect Reduced Speed)

Note: Flashing Green Light



◀ Main: Clear

(Distant: Expect Stop)



◀ Main: Stop

Note: Aspect only provides “distant” information if yellow triangle post plate is present.

Ks Signalling

Ks Signals provide the same information as Hv signals but do so in a more condensed fashion. The Ks Signals aim to condense the information provided down to a single set of lights.

For example, the following two signals are providing similar information. Expect reduced speed at the next main signal (the Ks to 40 km/h, the Hv to 60 km/h). The presence of the Ne2 board on the Ks signal means this is strictly being used as a distant.



The signals below are also identical in the information provided. In this case, the white light combined with the Ne2 tells us that the main signal following this “Expect Stop” aspect is closer than normal, and we’ll need to brake accordingly.



Compare these two examples with the ones above and note the positioning of the white light on the Ks signal in the left column:



These signals are both distant repeaters (note the lack of Ne2 board), but also observe that the white light is now in the bottom left of the Ks signal.

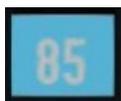
Safety Systems: PZB Quick Reference

Starting	System starts in restrictive monitoring. Limit to 45 km/h. Can Release when if there are no active 1000 Hz or 500 Hz magnets in the next 550 m.
When to Acknowledge	On passing Expect Reduced Speed, Expect Stop or any speed reduction warning below 100 km/h. How: Once you have passed the signal, press and release PZB Acknowledge.
When to Release	If 1000 Hz not lit, and no 1000 Hz or 500 Hz active magnets in next 550 meters
When to Override	On permission to proceed through a RED / STOP signal, must be below 40 km/h.
After an Emergency Stop	Stop, Press PZB Release, Reset Brakes and Throttle, then proceed as normal.

If 70/85 lights alternatively flashing, PZB Restricted mode applies, otherwise Normal Mode.

PZB Modes

Use appropriate speed chart from following page based on the PZB Mode in operation (O, M, U). Use the following table to review which mode is in operation.



PZB Mode **O** (Obere)
Used for Passenger services



PZB Mode **M** (Mittlere)
Used for Freight Services with good braking



PZB Mode **U** (Untere)
Used for Heavy Freight Services

PZB Mode O - Normal

Max	1000 Hz	500 Hz Start	500 Hz Max
165 km/h	85 km/h within 23 sec	65 km/h	45 km/h within 153 m

PZB Mode O - Restricted

1000 Hz	500 Hz Start	500 Hz Max
45 km/h	45 km/h	25 km/h within 153 m

PZB Mode M - Normal

Max	1000 Hz	500 Hz Start	500 Hz Max
125 km/h	70 km/h within 29 sec	50 km/h	35 km/h within 153 m

PZB Mode M - Restricted

1000 Hz	500 Hz Start	500 Hz Max
45 km/h	25 km/h	25 km/h

PZB Mode U - Normal

Max	1000 Hz	500 Hz Start	500 Hz Max
105 km/h	55 km/h within 38 sec	40 km/h	25 km/h within 153 m

PZB Mode U - Restricted

1000 Hz	500 Hz Start	500 Hz Max
45 km/h	25 km/h	25 km/h

Safety Systems – PZB Overview

The PZB system is an advanced on-board cab signalling system used to enforce reductions of speed on approach to various situations on the track, whether that is adverse signals, speed reductions or something else. It works via three buttons on the cab desk (Acknowledge, Free and Override) and some visual displays on the desk or the display panels, depending on the locomotive / unit.



Toggling PZB on the DB BR 185.2 & DB BR 146.2

1. Select the correct PZB mode via the mode selector switch on the right-hand side of the desk, just underneath the main surface.
2. Either - Press Ctrl-Enter to toggle PZB via the Keyboard
3. Or - operate the PZB breaker switch on the back panel.



Toggling PZB on the DB BR 766.2 Control Car

1. Select the correct PZB mode via the mode selector switch on the back panel near the window.
2. Either - Press Ctrl-Enter to toggle PZB via the Keyboard
3. Or - operate the PZB breaker switch on the back panel.



For many of the heavy freight services in Main-Spessart Bahn, you will need to operate in PZB Mode **U** and you will need to adjust your overall top speed to 90 km/h to ensure safe and reliable braking.

How to Use PZB

PZB can be daunting when you first get started but it is extremely rewarding and fun once you get the hang of it. Included in this manual is a PZB Quick Reference which will be handy to have by your side (perhaps printed, or on a mobile device while you drive) until the system begins to become second nature. Start by learning the signals and then turn PZB on. It is recommended that you do not try to learn PZB and SIFA at the same time.

Setting Up

Before you start, you should check to make sure you are in the correct PZB mode. PZB has three different modes designed for essentially passenger, freight and heavy freight trains (it's normally determined by the braking ability of the train). Use the PZB Mode table in the quick reference to determine the correct mode. For our examples, we'll be using PZB Mode O for a passenger train. Ensure that PZB is disabled when you change this and then enabled once you have finished choosing the correct mode.

Starting Off

Once PZB is activated and you start moving it will switch to its Start Programme which you can see by the alternating 70/85 lights on the PZB section of the desk of the BR 146.2, and on the BR 185.2 a flashing indicator with a yellow text announcement "v-Überwachung 45 km/h", as well as on the HUD. While these are alternating you should adhere to a speed limit of max 45 km/h (though most drivers will stick to 40 km/h to allow a 5 km/h margin for error in the calibration of speed measuring equipment). You can either let this expire naturally OR if you are sure you have green signals, no speed restrictions and or no signals at all in the next 550 meters then you can press the Keyboard END / PZB Free button to release from the start programme early. To do this with a controller simply look at the PZB Free button on the desk and activate it.

Once released from the Start Programme you will be able to drive according to the max permissible speed under the given PZB mode and the line speed, whichever is lower.

Reacting to the Route

As you drive you will be faced with signals and speed restrictions, and it is important that you understand how you must react to these. As you get to (or near) these, devices next to the rails will send a pulse to the train and it's your job to predict this and react accordingly.

It is good practice not to run right up to your speed restrictions when PZB is monitoring, drivers will generally run around 5 km/h under the PZB monitored limit to allow for any calibration or calculation errors in any of the equipment.



In our first example we'll be driving along, and we are faced with the signal on the left.

From a PZB perspective the most essential information here is that the distant is showing an Expect Slow aspect with an indicated 50 km/h speed at the next main signal. This signal requires PZB reaction to proceed.

After we have passed this signal, press and release the PZB Acknowledge button (Page Down on the keyboard, B on the Xbox Controller, Circle on the PS4 controller) and the on-board PZB system should now show 1000 Hz indicator in the cab and on the HUD.

If you now refer to the PZB Mode Tables from the Quick Reference, you can see that we must now reduce speed to 85 km/h within 23 seconds.

This is the only intervention PZB will have, it is now your responsibility to further reduce speed to meet the 50 km/h permitted speed by the next main signal.



In this example we are approaching a signal which has an Expect Stop distant aspect. This tells us crucially that the next main signal is a Stop aspect and we must not proceed past it.

After we have passed this signal, press and release the PZB Acknowledge button (Page Down on the keyboard, B on the Xbox Controller, Circle on the PS4 controller) and the on-board PZB system should now show 1000 Hz indicator in the cab and on the HUD.

If you now refer to the PZB Mode Tables from the Quick Reference, you can see that we must now reduce speed to 85 km/h within 23 seconds.

Assuming the next signal remains at a Stop aspect you must now prepare to meet the 500 Hz magnet on the track. Again, referring to the table this requires that you are going no faster than 65 km/h at the exact moment you hit the 500 Hz magnet and then once you do, you have 153 meters in which to further reduce your speed to 45 km/h.

Once you go over the 500 Hz magnet you will see the 500 Hz indicator appear on the desk and HUD – you do not need to acknowledge this, but you must obey the speed restrictions.

Once you have met the 500 Hz restrictions, your only task is to ensure that you now successfully stop before the red signal.

These aren't the only two times that you will need to use PZB, but they do form the most frequent situations that require PZB intervention.

Speed restrictions often also require a PZB acknowledgement, however the rules for this can be trickier to understand and remember for the new driver. The simplest rule and indeed one that is used by many drivers on a day to day basis is simply to acknowledge any speed restriction showing less than 100 km/h limit and then if the 1000 Hz activates make sure that you can respond with the appropriate speed reductions according to the table in the quick reference section.

Restricted Monitoring

While under 1000 Hz or 500 Hz, if you travel below 10 km/h for 15 seconds or more or come to a complete stop then the PZB system will switch in to Restrictive Monitoring. At this point the speed limits enforced change and you should use the Restrictive Monitoring speed tables from the quick reference sheet.

It is possible to release from Restricted Monitoring if neither of the 1000 Hz or 500 Hz indicators are lit and you are confident that there are no active 1000 Hz or 500 Hz active magnets ahead within 550 m, you can do this with the PZB Free or END key on the keyboard. On the controller you will need to access the button on the desk directly.

Overspeed

If in the normal course of driving you exceed the main PZB speed limit for the mode you are operating under (i.e. when not under any restrictions), the PZB system will apply a full-service application to bring you back within the speed limit.

This brake application will begin releasing as soon as the train is below the correct speed limit however as it is full service, it's likely the train will slow considerably before the brakes are fully released.

For example, if you are in PZB Mode O and exceed 165 km/h you will get a warning indicator showing a "G" indicating you are exceeding the maximum allowed speed, after a few seconds the brakes will apply and slow the train. Once the train is below 165 km/h the brakes will begin releasing but you may be as low as 60 or 70km/h before they have fully released.

Handling an Emergency Brake Application

Should you make an error while interacting with PZB it may result in the train sounding alarms and applying emergency brakes. If this happens:

- Wait for the train to come to a complete stop
- Press END on the keyboard or activate the PZB Free button to cancel the alarms
- Apply the brake handle and move the throttle handle to zero if it isn't already
- Release the brakes and continue as normal.

Note that you will likely now be in Restricted Monitoring with an appropriate speed restriction and will need to observe that and decide whether you are able to release safely, if not, continue under the restriction until it releases naturally.

Also, be aware of the cause of the braking, for example, if you are approaching a red light or a speed reduction you should act accordingly.

Passenger Door Controls

In Train Sim World: Main-Spessart Bahn, you can control the passenger entry and exit doors on each side independently i.e. either left side or right side. A simple method of control has been implemented for the included trains. Simply press the TAB key to call up the menu and select on which side of the train you wish to lock/unlock the doors.

You can also operate the doors from within the various cab desks. You should first operate the door side selector to ensure the correct side is selected (Left, Right or Both) and then use the white switch to Open or Close the doors on that side as required. There is a white switch on either side of the cab however that is for convenience, they will open the doors on the side indicated on the selector switch.

Banking Operations

Often the amount of power needed to move a heavy train only requires one locomotive on the front but there are occasions when ascending steep gradients that this isn't enough. One solution to this problem is to put two locomotives on the front however this is an expensive approach if it's only needed for a short section of the journey. In these instances, a technique called Banking is used.

Banking is where an additional locomotive added to the rear of the train for the purpose of helping push the train up the gradient. At the top, the banker will disconnect and return to the bottom of the hill ready for the next train that needs assistance.

One of the main features of the Main-Spessart-Bahn is the presence of a steep 2.1% gradient between Laufach and Heigenbrücken. When heading eastbound, heavier trains will require the use of the banking locomotive stationed in Laufach to reach to summit around 5 miles away.

In Service Mode, you can find several examples of trains that require banking services and you can either act as the banker or the freight train driver. The experience in the sim is somewhat simplified against the real process but still provides a great challenge and a unique driving experience compared to other journeys.

The journey of a banked freight is broken up in to five services within service mode as follows in this example:

DB 83101	A freight run with one locomotive from Aschaffenburg to Laufach. Drive this run and stop in the marked area at Laufach and await the banking locomotive.
DB 89101	The banking locomotive now drives out of its siding to a reversing point and then comes up behind the freight train and couples to the rear.

	<p>Once coupled, press the Banking COMM button in the loco you wish to drive from to take remote control of the other loco (see note below).</p> <p>Note: You may need to request permission from the signaller to proceed in to the station.</p>
DB 83102	The combined train with additional power on board now makes the run up the 2.1% gradient to Heigenbrücken. On arrival at Heigenbrücken you will need to uncouple the banking locomotive from the rear of the train.
DB 89102	The banking locomotive must now return down the hill to its siding in Laufach ready for the next train that needs its assistance.
DB 83103	Now that the freight train has reached the summit, it can proceed on its journey. Note: If you don't get any new tasks showing up simply stand up and sit down again to regain control of the new service and you should see your next task for this train.

Whether you are the driver of the banking locomotive or the freight driver at the front, the process for engaging the banking operation is the same. Once the banking locomotive has coupled, press the Banking COMM button on the cab to engage remote control and then you are ready to go, the other locomotive will now mirror your controls and provide additional power as required.

Default English Keyboard & Other Controls

Name	Keyboard		Controller	
	Increase / Press	Decrease	Increase / Press	Decrease
Throttle in BR 185.2 & BR 146.2	A	D	Right Trigger	Right Bumper
Reverser	W	S	Left Stick Up	Left Stick Down
Auto Brake	Apostrophe	Semi-Colon	Left Trigger	Left Bumper
Headlights	H	Shift + H	Hold D-Pad Right Also: Tap D-Pad Right to cycle headlight settings	Hold D-Pad Right
High Horn	Space		Left Stick Click	
Low Horn	N			
Master Switch	CTRL + W			
SIFA Reset	Q		B Button	
Sander	X			
Cab Light	L	Shift + L		
Handbrake	\	Shift + \		
Emergency Brake	Backspace			
Wipers	V	Shift + V	D-Pad Up	
Toggle SIFA	Shift + Enter			
Toggle PZB	Ctrl + Enter			
PZB Acknowledge	Page Down		B Button	
PZB Release	End			
PZB Override	Del			
Activate AFB in BR 185.2 & BR 146.2	Ctrl + R			
AFB Speed Set	R	F		
Torch (When Walking)	L			

Note: the above keys can be redefined in the in-game settings menu.

Controlling the Camera & Camera Modes

Train Sim World: Main-Spessart Bahn includes several cameras for you to control, here's an outline of those cameras and some examples of use:

- 1 Key - First Person Camera or Cab Camera**
Use this camera to operate your locomotive, flip switches and handle all your cab controls.

- 2 Key - Boom Camera**
Just like the camera from Train Simulator, your camera extends outward on an invisible pole, you can rotate it around your focussed vehicle. Use Ctrl and the left & right cursor keys to switch between vehicles or press the 2 key again to switch between the front and rear of your consist.

- 3 Key - Floating Camera**
A new camera that allows you to freely look in all directions, useful for coupling and changing switches. Press it once to view the front of your consist and again to view the rear. Freely move your view using the cursor keys.

- 8 Key - Free Camera**
Freely move around without limits using this camera. Use this camera to navigate your way around a busy yard, change switches or position it to get the perfect screenshot.

Customising the HUD

Train Sim World: Main-Spessart Bahn includes many options for you to customise the Head Up Display (HUD):

- CTRL+1 Toggles the in-world objective marker.
- CTRL+2 Toggles the in-world next speed limit marker.
- CTRL+3 Toggles the in-world next signal marker.
- CTRL+4 Cycles the next speed limit / signal information panel in top right.
- CTRL+5 Toggles the speedometer panel (or clock/compass while walking).
- CTRL+6 Toggles the score display.
- CTRL+7 Toggles the passenger stop marker on the track.
- CTRL+8 Cycles the centre dot transparency (off, 50/50, white).

Dovetail Live Account

The Dovetail Forums are your one-stop destination for everything Train Simulator and Train Sim World related. We have an ever-growing and vibrant community of train enthusiasts from all over the world, ranging from experienced railroad veterans to new players getting into the world of train simulation. So, if you haven't already, why not sign up for an account today and join our community – we'd love to have you on board!

See more at: [**https://forums.dovetailgames.com**](https://forums.dovetailgames.com)

Dovetail Live is an online destination which enables players to interact with Dovetail's products and each other in an environment tailored specifically to fans of simulation entertainment. Dovetail Live will evolve to become central to Train Sim World®, enriching the player experience in every way from offering rewards, building a community of like-minded players and helping every player find the right content to create their own perfect personal experience.

Signing up for Dovetail Live is completely voluntary. However, users that do sign up for it will receive exclusive benefits in the future.

See more at: [**https://live.dovetailgames.com**](https://live.dovetailgames.com)

Troubleshooting Guide & How to Get Support

I have a problem downloading the Steam client, how do I contact them?

You can contact Steam Support by opening a customer service ticket at support.steampowered.com/newticket.php. You will need to create a unique support account to submit a ticket (your Steam account will not work on this page) and this will enable you to track and respond to any tickets you open with Steam.

How do I install any secondary programs that the game may need?

Train Simulator World: Main-Spessart Bahn requires certain secondary programs to operate properly. These are standard programs that most up-to-date computers already have installed on them, such as DirectX. These programs can be found at the following location: Local Disk (C:) > Program Files (x86) > Steam > SteamApps > common > TSW > CommonRedist

How do I change the language of TSW: Main-Spessart Bahn?

This is an easy process and will allow you to play Train Sim World: Main-Spessart Bahn in English, French, German, Spanish, Russian and Simplified Chinese. To change the language of Train Sim World: Main-Spessart Bahn, right-click on the Steam icon on your PC desktop, left click on 'Library', right click on 'Train Sim World', left click on 'Properties', and finally left click on the Language tab and select your preferred language.

How do I reset my display screen size settings?

It is possible to change the display screen size settings for Train Sim World: Main-Spessart Bahn from within the game. Changing display screen size settings is done from the Settings menu in the Display tab.

For any questions not covered here, visit our knowledgebase at <https://dovetailgames.kayako.com>