



Version 1.0 Build 230515

USER MANUAL



Tutorial Route

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Introduction

General

The Tutorial Route (SETR) was initially built as a companion to the Scenario Editor tutorial guide, developed by Wilbur Graphics. In this role the SETR will also be used in future tutorials. The route represents a fictitious NS line, flexibly situated in the time around 1990, when the railway infrastructure is characterized by concrete ties and daylight signals. All tracks have been equipped with catenary. The surrounding landscape and urban buildings have been developed as credibly as possible. The effective driving length is approx. 23 km.

In this manual you will find instructions for the installation of the route, which comes complete with scenery and Wilbur Graphics equipment objects. We only expect that you already have the **ELAP** addon by **DTG** and the **Mat '64** addon by **ChrisTrains** in your possession. Then we give a brief description of the route and the emplacements you may encounter, followed by an overview of the included WG rolling stock. We also discuss the daylight signals used (NS signalling system 1954).

The SETR comes with a *time-table* scenario in which the student can explore the route: **01 Instruction ride**, driving the Mat '64 EMU from ChrisTrains.

In the appendices you can find the quick guides for operating the included Wilbur Graphics locomotives.

Installation

General

The Wilbur Graphics Tutorial Route is provided as a .zip file and includes the following items in addition to a `Leesmij_NL.txt`:

- Map Manuals\Wilbur Graphics with English, German and Dutch manuals:

WG_SETR_Handbuch_V1_0.pdf
WG_SETR_Manual_V1_0.pdf
WG_SETR_Handleiding_V1_0.pdf

- installer program `WG_SETR_V10_build_230515.exe`

After launching the installer, you will be prompted to

- Language selection for the installer (Dutch/English/French/German)
- Accepting the License Terms (EULA)

See the `release_notes.txt` for the latest changes and improvements.

Other tips

- The .zip file must be fully unpacked before you can begin the installation.
- If the installation software cannot find the Railworks folder on your system, the reference to this folder in the Windows registry may no longer be valid. This situation occurs if you have moved the Steam environment to another computer or disk drive. You could solve this by repeating the installation of Steam.

Removing the WG Tutorial Route

To remove the SETR, we advise you to delete the folder in question:

`1c7b5207-9680-4fdb-be40-8ecd158f7ff5`

... from the folder `C:\Program Files (x86)\Steam\steamapps\common\RailWorks\Content\Routes`

Required add-ons

ELAP: The route uses, among other things, scenery objects that DTG no longer provides as part of the package since the 2015 version. Users who have come on board from this version on can overcome this issue by purchasing the DTG add-on *European Loco and Asset Pack (ELAP)*, available for a small fee on the Steam website.

CT Mat '64: In addition, we used the ChrisTrains Mat '64 addon in scenario *01 Instruction Ride*.

Settings and system requirements

In developing this route, the builders have taken into account the hardware specifications then recommended by Train Simulator Classic's supplier, DoveTail Games:

Minimum system requirements:

OS	Windows® Vista / 7 / 8/ 10
Processor:	2.8 GHz Core 2 Duo (3.2 GHz Core 2 Duo recommended), AMD Athlon MP (multiprocessor variant or comparable processors)
Memory:	4 GB RAM (6 GB recommended)
Graphics:	512 MB with Pixel Shader 3.0 (AGP PCIe only)*
DirectX®:	9.0c
Hard Drive:	8 GB HD space
Sound:	Direct X 9.0c compatible

* Laptop versions of these chipsets could work but are not supported by TS Classic. The drivers for your video and sound cards may need to be updated.

Furthermore, we recommend that our users copy the graphics settings of TS Classic from the images below:



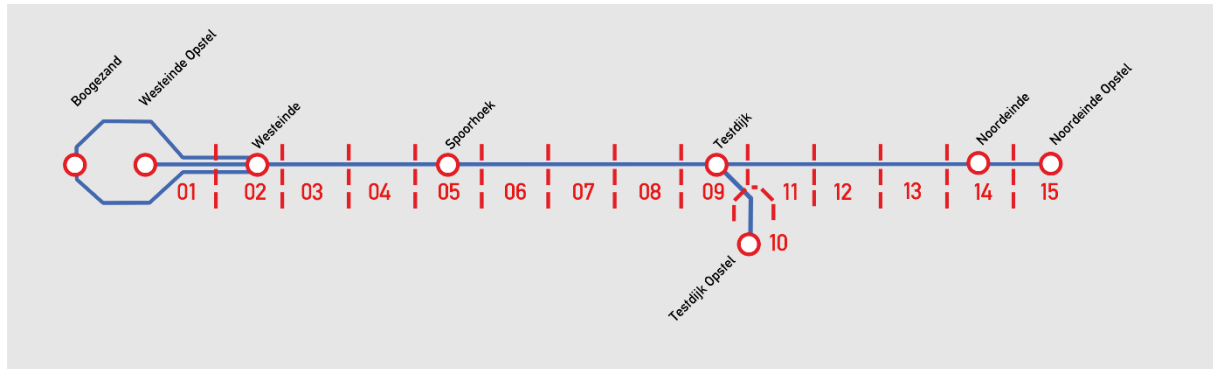


When using this add-on on heavier PCs with higher specifications than those indicated by DTG, you could consider deviating from these settings, but we have not tested our route under those conditions.

The memory capacity of this route does not exceed 2.5 GB. Nevertheless, it is recommended to minimize the number of parallel and background processes when driving scenarios on the route.

The route

Overview



Block numbers assignment

The Tutorial Route (SETR) is divided into sections (blocks) of 1-2 km length. Each block is protected by a block signal. In this route, the blocks are numbered.

The following numbering is used on the SETR:

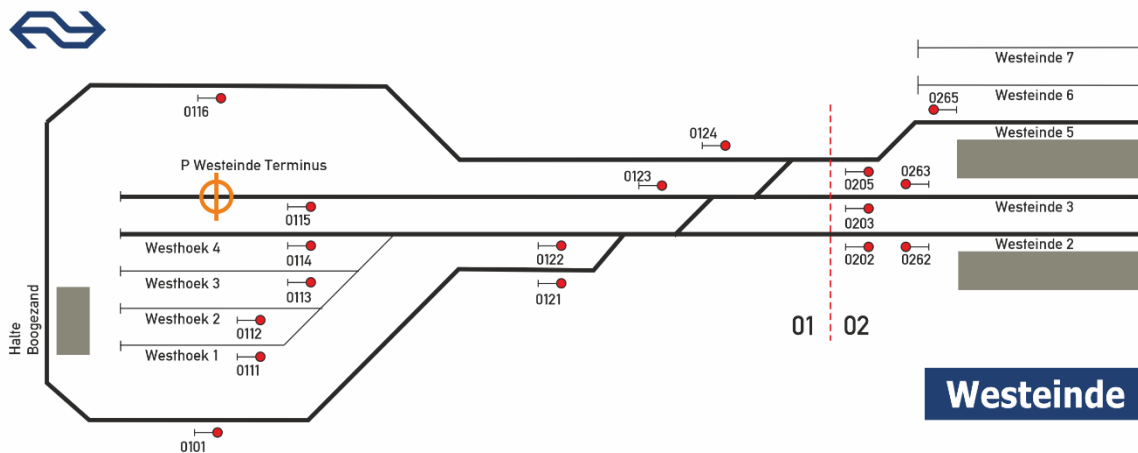
Sections	Locations
01	Westeinde (Opstelterrein), halte Boogezand
02	Westeinde
03	
04	
05	Spoorhoek
06/07/08	
09	Testdijk
10	Testdijk (Opstelterrein)
11/12/13	
14	Noordeinde
15	Noordeinde (Opstelterrein)

Stations and yards layouts

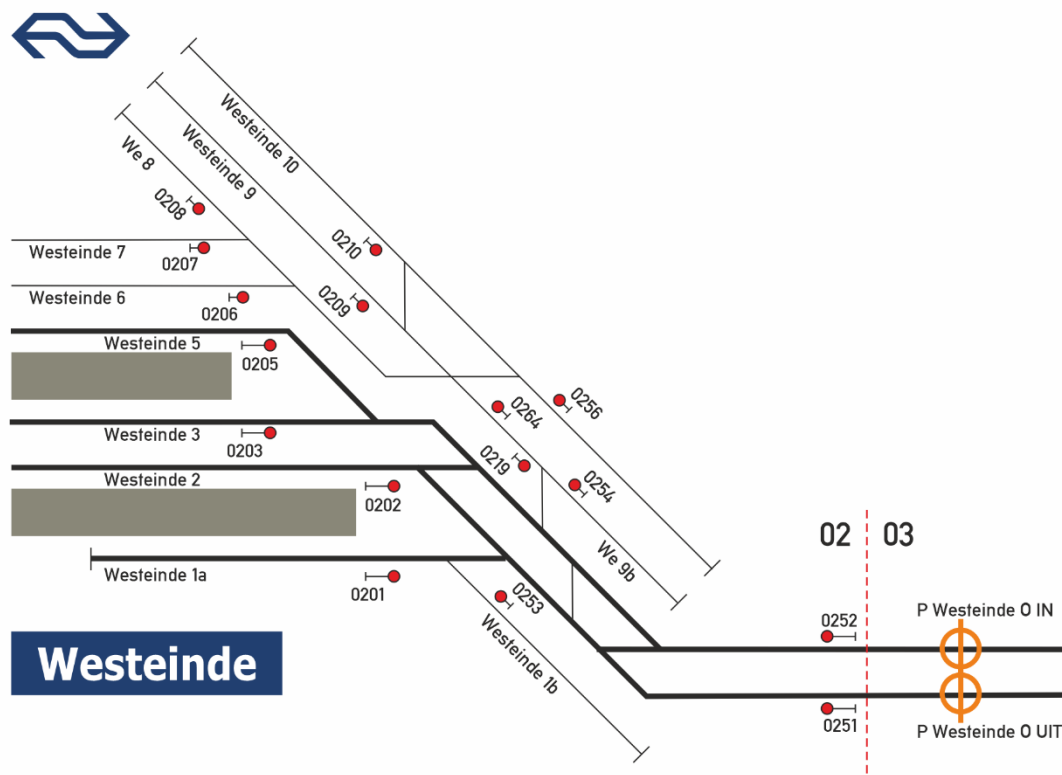
General

Diagrams have been made of all emplacements in the route with references to the signal numbers and the naming of *sidings* and *platforms*. For the numbering of the signals, a four-digit code has been chosen, the first two positions of which indicate the block or section number and the second group of two digits represent a sequence number.

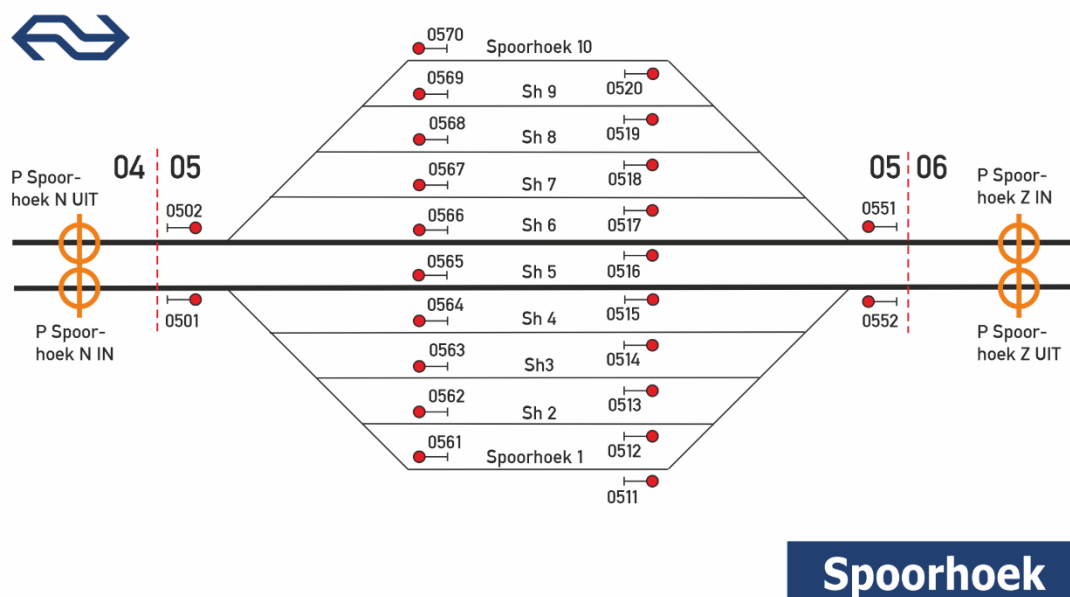
Westeinde Opstel en Boegezand Loop



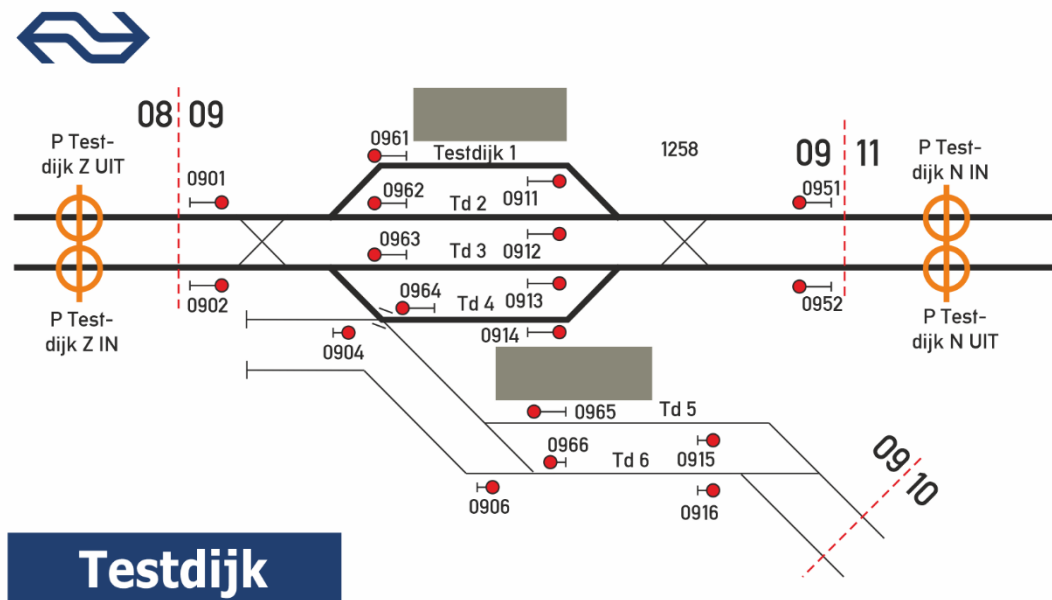
Westeinde (Oostzijde)



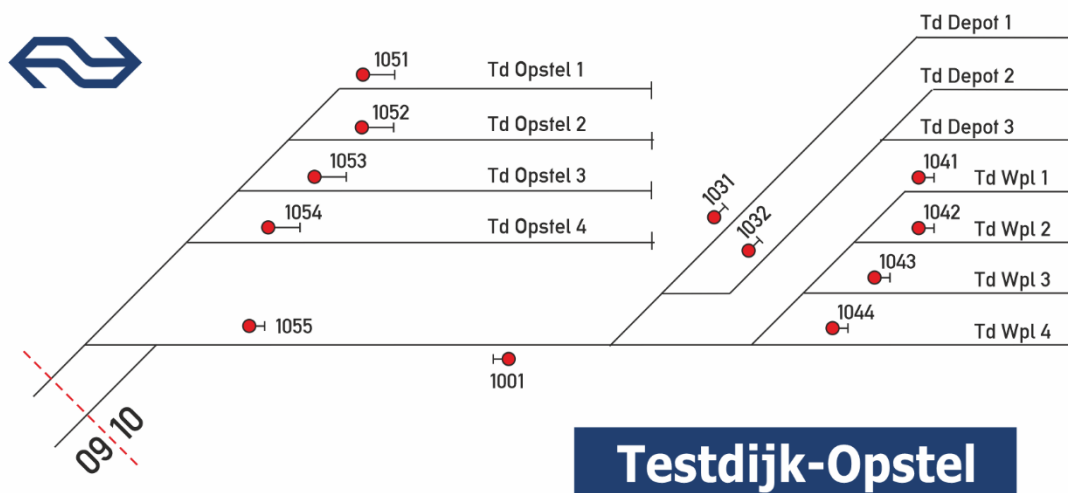
Spoorhoek



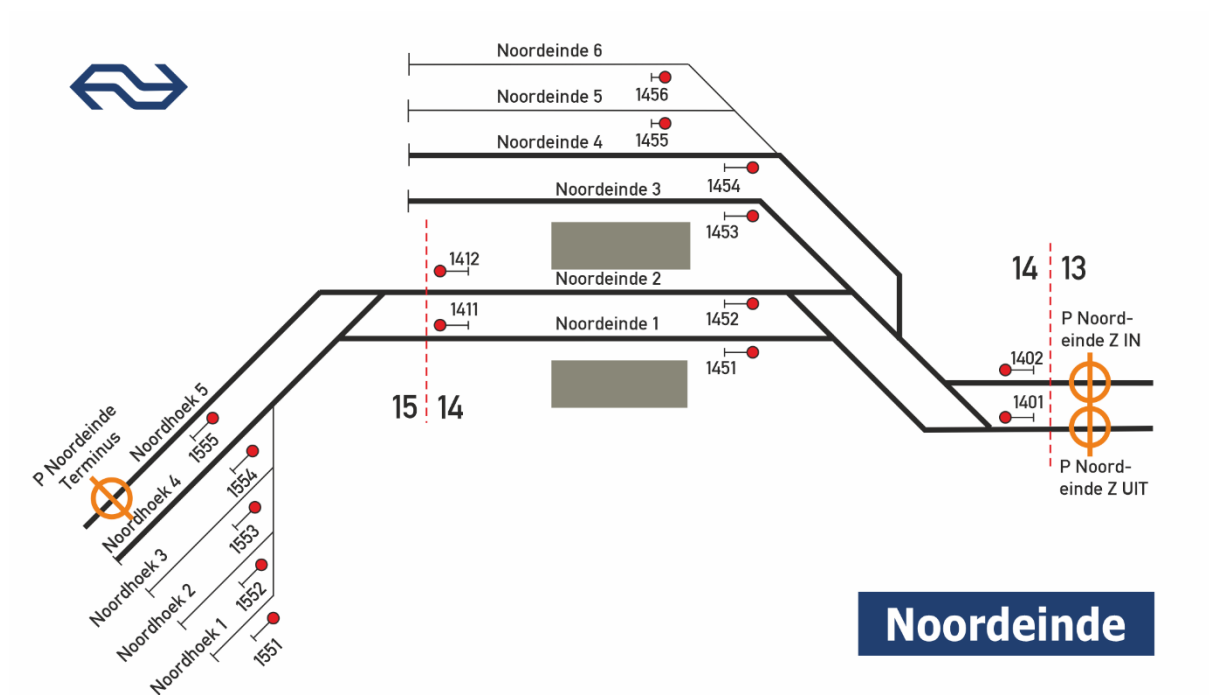
Testdijk



Testdijk Opstel



Noordeinde en Noordeinde Opstel



Locomotives

NS 1722/1734/1737



DB (ex-NS) 1615



NS 622/673



Coaches

DB International 119 Apmz/Bpmz



NS ICR



Goods wagons

DB Cargo Fals 167



VTG Fals 167



NS Fals 254 (Kalk)



NS Sgns (div. uitvoeringen)



Preload consists

This release includes the following preload consists:

WG DB 1615 with 20 Fals DB Cargo
WG NS 1722 with 20 Fals VTG
WG NS 1734 with 6 NS ICR
WG NS 1734 with 20 Sgns
WG NS 1737 with 8 DBi A/Bpmz
WG NS 622 with 3 NS ICR

TS Browser Index

WG NS 1722
WG NS 1734
WG NS 1737
WG NS 622 huisstijl
WG NS 673 huisstijl
WG NS ICR Apmz
WG NS ICR BDpmz
WG NS ICR Bpmz
WG NS Fals 254 (Kalk)
WG NS Sgns7 (div. uitvoeringen)
WG DB 1615
WG DB 119 Apmz
WG DB 119 Bpmz
WG DB Cargo Fals 167
WG DB VTG Fals 167

Signalling Guide

General

Definitions

Home signal:

A light signal that can show 'Stop'.

Speed limitations:

Depending on the speed at which you drive:

- Reduce speed to the prescribed speed; or
- Increase speed to the prescribed speed

P-signal:

An automatic light signal marked with 'P'

Driving on sight:

Can stop at any point behind the signal.

Speed limit to 40 km/h.

Speed:

Number x 10 km/h

Section speed:

The highest permitted speed of a section.

Local speed:

The speed permitted by local signs or light signals

Location of the signals

The signals are located to the right of or above the track to which they apply. An exception to this are the signals:

- For the left track, on a two-track section;
- Low-level signals that cannot stand on the right due to local conditions.

Validity of the signals

All signals apply to both train and shunting services.

Decrease and increase speed

To reduce or increase the speed:

- A speed reduction must be initiated when the first vehicle passes the signal instructing a speed reduction
- A speed increase may not be carried out until the last vehicle has completely passed the signal allowing a speed increase.

Light signals

Meaning of the light signals

Red variant means 'Danger'. By red variant is meant that the main color of the light signal shown is **red**.

Green variant means 'Driving by allowed'. By green variant is meant that the main color of the light signal shown is **green**.

Yellow variant means 'Limit speed'. By yellow variant is meant that the main color of the light signal shown is **yellow**.

White variant means 'Passing allowed'. By white variant is meant that the main color of the light signal shown is **white**.

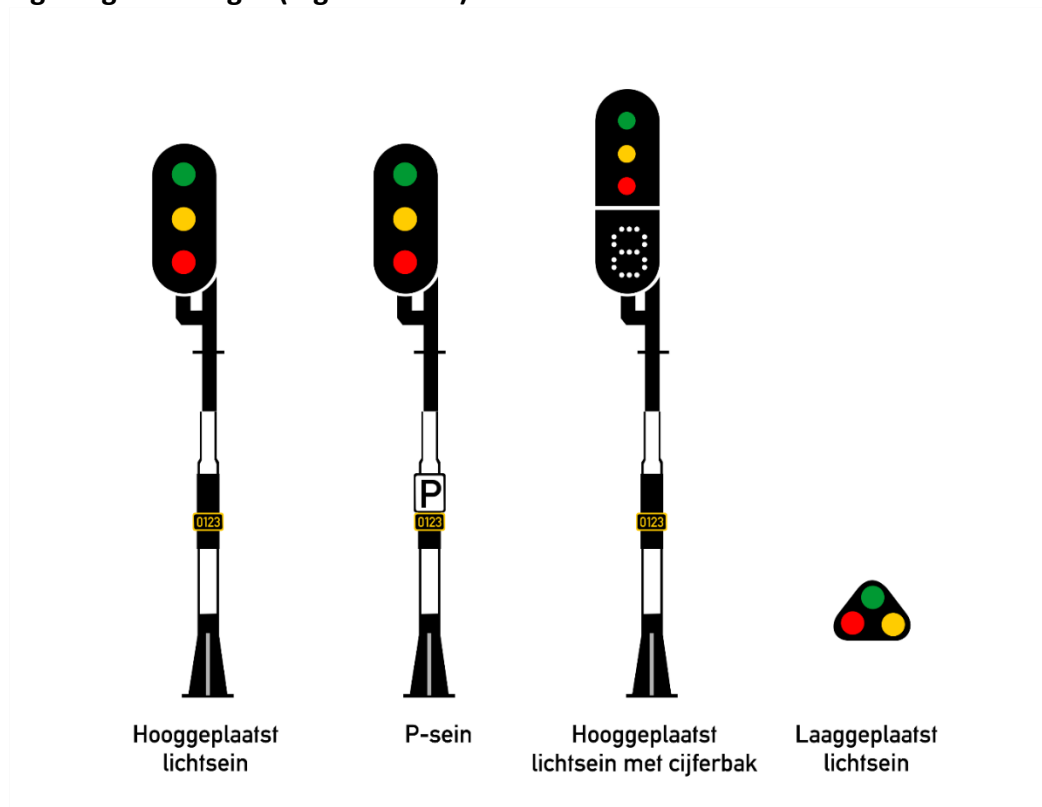
Order of signal images

The 1954 signalling system used in the SETR gives:



- permission to drive at a certain speed; or
- command to limit the speed

The signal images follow each other in such a way that the driver can follow the command of each signal image. The signal image 'Limiting speed' is given at such a distance that a reduction in speed can be carried out in time. Timely means that the available braking distance is sufficient to achieve an imposed lower speed.

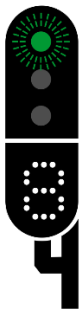

Light signals images (high and low)




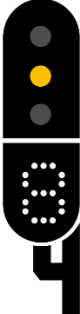
Green variants

Picture	Aspect	Instruction
	<i>Major green</i>	Passing is allowed at local speed. If the speed is not known at departure, depart at 40 km/h.
	<i>Green flashing</i>	Passing allowed at 40 km/h.


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	<i>Green flashing with number</i>	Passing allowed at the speed indicated by the number (x 10 km/h)
	<i>Minor green</i>	Passing allowed at 40 km/h.


Yellow variants

Picture	Aspect	Instruction
	<i>Yellow (major or minor)</i>	Limit speed to 40 km/h or as much less as necessary to stop for the next 'Danger' signal.
	<i>Yellow with number</i>	Limit speed to the speed indicated by the number (x 10km/h). A speed reduction must be complied with at the latest at the next light signal.


Tutorial Route

	<i>Yellow flashing (major or minor)</i>	Drive on sight
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Roodvarianten




Picture	Aspect	Instruction
	<i>Red (major or minor)</i>	Stop before the signal.

White variants



Picture	Aspect	Instruction
	<i>Departure signal</i>	Permission to depart.

Signal shields





Speed signs

Picture	Aspect	Instruction
	<i>Speed reduction sign</i>	Limit speed to the value indicated by the number (x 10 km/h).
	<i>Speed sign</i>	Driving allowed at the speed indicated by the number (x 10 km/h).
	<i>Section speed sign</i>	Allowed to increase the speed to the limit indicated by the number (x 10 km/h).

Overige borden

Picture	Aspect	Instruction
	<i>Track termination</i>	Stop before the signal.
	<i>Station approach board</i>	A station follows within braking distance.

Tutorial Route

	<i>Catenary end sign</i>	<p>The sign must not be passed with risen pantographs.</p>
	<i>Digit sign</i>	<p>Indication of the place where the front of a train, consisting of the number of carriages indicated by the number, is to come to a stop.</p>
	<i>Digit sign</i>	<p>If only this sign is shown, it will serve as a placeholder for each stopping train.</p>
	<i>P-sign</i>	<p>P-signal (automatic signal along tracks outside yards).</p>

Attachments

Cab Layout NS 1700



1	Rotator current M1		13	Sander	X
2	Rotator current M2		14	Shunting signals	CTRL + F9
3	Catenary tension		15	Wipers	V
4	Catenary current		16	Control current on/off	CTRL + 0
5	Speedo		17	Pantograph up/down	P
6	Barke cylinder		18	Panto fore/aft	
7	Brake pipe/Main reservoir		19	Typhoon	SPACE BAR
8	Control current tension			Typhoon (short)	N
9	Field current M1		20	Controller	A D
10	Field current M2		21	Train brake	; '
11	Reverser	W S	22	Train signals	Headlights
12	Engine brake	[]	23	Cab lights	CTRL + F11
			24	Panel lights	CTRL + F12

The layout of the cab in this TrainSimulator view follows the TS Classic standard (expert mode) and therefore deviates sometimes from the real world (no shunt control, for example). The control current switch is working and blocks the primary controls in the OFF position. The operation of front and closing signals is TS-compliant.

Tutorial Route

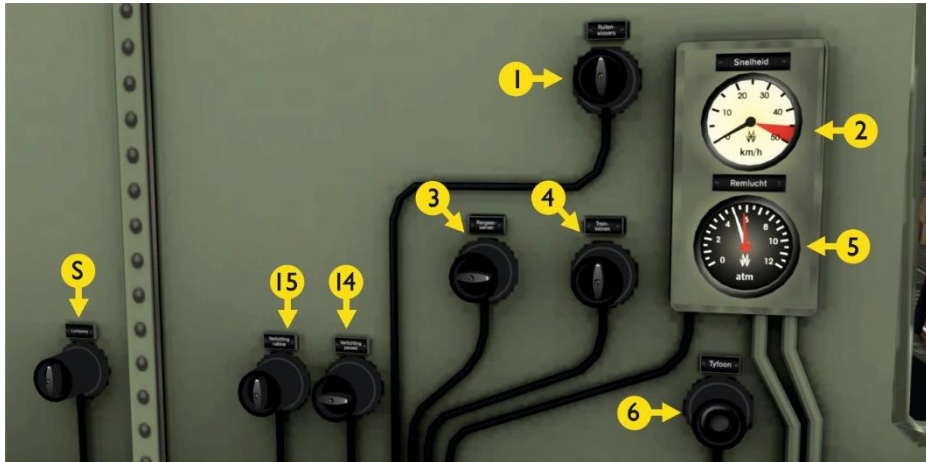


The screen prints above clarifies the operation of the pantograph switches 17 and 18. After setting up the pantographs with hotkey P or with switch 17, switch 18 remains in the 'forward' position (left image). Both pantos are put up, while the front panto is down when we drive forward and our speed gets above 20 km / h. When reversing, both pantos stay up, but above 20 km/h, it is the front pantograph again which will be lowered. *The chosen direction of travel therefore no longer affects the position of the pantos.* To adjust the panto configuration to the direction of travel, we therefore use switch 18 (right image).

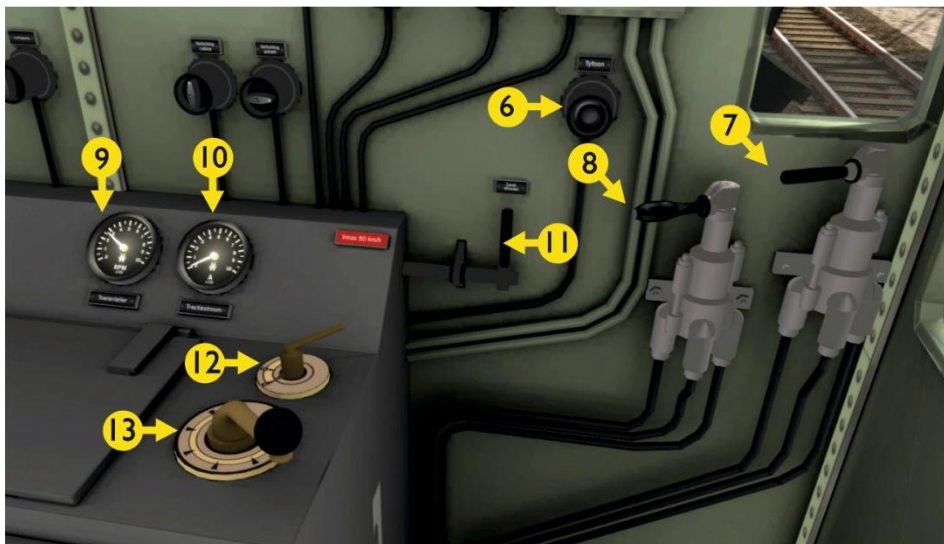


In this screen print, the NS 1737 is driving at 12 km/h and both pantos are still up.

Cab Layout NS 500



S	n/a		6	Typhoon	SPACE BAR
1	Wipers	V		Typhoon (short)	N
2	Speedo		14	Panel lights	CTRL+F11
3	Shunting signals	CTRL+F9	15	Cab lights	CTRL+F12
4	Train signals	H/SHIFT+H			
5	Brake pipe/main reservoir				



6	Typhoon	SPACE BAR	10	Traction current	
	Typhoon (short)	N	11	Sander	X
7	Engine brake	[]	12	Reverser	W S
8	Train brake	; '	13	Controller	A D
9	RPM				

Frequently Asked Questions

Question: Why is there a speed limit for through tracks in stations?

Answer: That has everything to do with the length of the station tracks. Extensive emplacements not only demand a lot from the software and your computer, but also require a lot of development time, and where different projects compete with each other to be realized, that time is valuable. As a result, the distance between entry and exit signals of emplacements in the SETR fluctuates around 800 metres. This then leads to a speed limit that fits the distance that is necessary for the braking distance at an exit signal at danger.

Question: Why can't I hear the Doppler effect with the level crossing bell?

Answer: When a train approaches, the lights flash and the bell sound. That remains audible for 10 seconds, then the effect stops. The lights keep flashing, the beams stay down. Most trains pass the level crossing when the sounds stop. Then, of course, the Doppler effect is no longer perceptible. If you were to approach a level crossing with an NS 500, you may even hear no bell at all because the train takes too long to reach the level crossing.

Colofon and credits

Design and production:

© Wilbur Graphics, Henk van Willigenburg (www.wilburgraphics.com)

With the support of:

Erwin Lansbergen a.k.a. Tjoe Tjoe (scripting NS daglichtseinen)

Trees, vegetation and characters:

Dovetail Games (DTG): TrainSim Academy

Tips en advice:

ChrisTrains.com

TrainworX (Paul Mersel)

Oscar Weijde

Ton van Schaik

Testing by:

René 't Hooft, Ton van Schaik

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Wilbur Graphics

<https://www.facebook.com/wilburgraphicspage/>

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