



# USER GUIDE

TrainworX SBB CFF FFS RABe 511

(Stadler KISS Dosto)

for

DTG Trainsimulator 2018\*

*\* not tested but should be compatible with any TS version from 2014 onwards.*



## Contents

Chapter	Topic	Page
1.0	Installing the RABe 511 add-on	4
1.1	Quick Drive consists	5
1.2	Use in Editor	5
1.3	Use as AI (Traffic)	6
2.0	Driving the RABe 511	7
2.1	Startup	11
2.2	Custom Setup	11
2.2.1	Panto choice	11
2.2.2	Wachsamkeitskontrolle (SIFA) setup	12
2.2.3	ZUB	13
2.2.4	Destination boards	14
2.3	Cab Controls	15
2.4	Additional functions	15
3.0	Horn (Makro)	16



Dear customer,

Thank you for purchasing the RABe 511 TS add-on. I have invested a lot of hours into converting this Dosto for TS which I trust has resulted in a good train simulator experience for you to enjoy.

The Stadler KISS is a bilevel electric multiple unit commuter train developed by Stadler Rail of Switzerland. It is operated by the Swiss Federal Railways under the classification RABe 511, as well as by other European railways. In the early stages of development it was known as the Stadler DOSTO.

The original name, "DOSTO", is derived from the German word Doppelstock, meaning "double decker". Since September 2010, Stadler refers to the train as "KISS", an acronym for komfortabler innovativer spurtstarker S-Bahn-Zug, meaning "comfortable, innovative, sprint-capable suburban train".

During the production of this add-on I consulted many friends at SBB and others. They helped me throughout the whole process with pictures, videos and technical info. Special thanks go out to Michael Aschwanden for his expert advice and Marco Schön, Fredi Stierli and Henk van Willigenburg for testing. Furthermore I would like to thank Jannik Scharf (Versystem) for his Translation to German and Roland Wagener for translating into French.

The simulation level is aimed to be as realistic as possible. Please understand however that various factors might influence the level of reality. Choices were made to balance realism with drivability and technical (Kuju engine) limitations as well as system load. If possible, some functionality can be improved in later versions.

This manual has been put together with utmost care. If however you find anything wrong please let me know so I can update the manual if needed.

I sincerely hope that you like the KISS and have lots of fun driving it in your simulator.

Kind regards,

Paul Mersel, TrainworX



## 1.0 – Installing the RABe 511 add-on

After downloading the installer pack you will have to unpack the file named **TwX\_RABe511\_Vxx** using winzip or 7z. After this step you will see the following files:

**TwX\_RABe511\_Vxx.exe**

**TwX\_RABe511\_UserGuideEN(version)**

**TwX\_RABe511\_UserGuideDE(version)**

**TwX\_RABe511\_UserGuideFR(version)**

The manuals can also be downloaded from the [TrainworX Webshop](#) which also has a Quick Guide available.

You can start by running the installer **TwX\_RABe511\_Vxx.exe** and follow the steps on screen. You will have to verify if the installer finds your correct Railworks folder which it will normally do, using the windows registry. If you have moved your Railworks folders manually, you might need to point the installer to the correct folder manually.

You also need to input your serial key. Please make sure you have an active, unblocked, internet connection before starting the serial key check. Your serial key can be found in your account on the TrainworX website.

*NOTE: If the serial key check does not work please DO NOT re-download the installer. First check if your internet connection is working correctly and if there are no software programs active that might block traffic to the TwX server. Wait a few minutes and try to run the installer again. If the problem persists please create a helpdesk ticket and I will help you.*

After the installation has finished, you will be able to use the RABe 511 in Train Simulator.

### 1.1 – Quick Drive consists

If you go into the Quick Drive menu you can search for SBB CFF FFS RABe 511 or browse through your installed rolling stock to find 10 available QD consists:



ZVV: SBB RABe 511 005 (4) - SBB RABe 511 005 (6)

ZVV: SBB RABe 511 006 (4) - SBB RABe 511 006 (6)

ZVV: SBB RABe 511 005 (6) + 511 006 (4)

FV: SBB RABe 511 020 (4) - SBB RABe 511 020 (6)

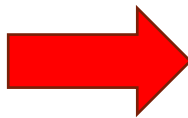
FV: SBB RABe 511 021 (4) - SBB RABe 511 021 (6)

FV: SBB RABe 511 020 (6) + 511 021 (4)

You can choose either one of these to start driving the RABe 511 on any route.

## 1.2 – Use in Editor

First activate the TwX RABe 511 assets by ticking the appropriate box:



In the scenario editor or custom quick drive builder you will have the following rolling stock available:

### Engines

SBB RABe 511 0xx 1 RBe

SBB RABe 511 0xx 6 RBe

SBB RABe 511 005 1 RBe  
SBB RABe 511 005 6 RBe

### Wagons

SBB RABe 511 0xx 2 AB

SBB RABe 511 0xx 3 B

SBB RABe 511 0xx 4 B

SBB RABe 511 0xx 5 AB

SBB RABe 511 005 2 AB  
SBB RABe 511 005 3 B  
SBB RABe 511 005 4 B  
SBB RABe 511 005 5 AB

There are 8 default consists available (4 and 6 car consists).  
To create your own consists correctly, please place items  
according to the following template:

SBB CFF FFS RABe 511 - RA...  
SBB CFF FFS RABe 511 - RA...

SBB RABe 511 0xx 1 RBe <> ... 0xx 2 AB <> .. 0xx 3 B <> .. 0xx 4 B <> ...0xx 5 AB <> ...0xx 6 RBe

or



SBB RABe 511 0xx 1 RBe <> 0xx 3 B <> 0xx 5 AB <> 0xx 6 RBe

You might need to 'flip' some wagons to align them properly. You can check this by looking at the wagon roofs (see illustration).



Or use the editor markers above the roofs.



You can couple 2 consists (any of the above) to form a 10 or 12 unit consist.

### 1.3 – Use as AI (Traffic)

The Rabe 511 consists will in most cases look correct when used as AI (traffic). There might be some corner cases where the pantograph and lights logic operate incorrectly. It is however important to place the consists correctly as described above and to make sure the orientation is correct (001 car in front).





## 2.0 – Driving the RABe 511

This chapter will describe the general steps to operate the TwX RABe 511. It is important to read this part attentively before operating the train in the game.

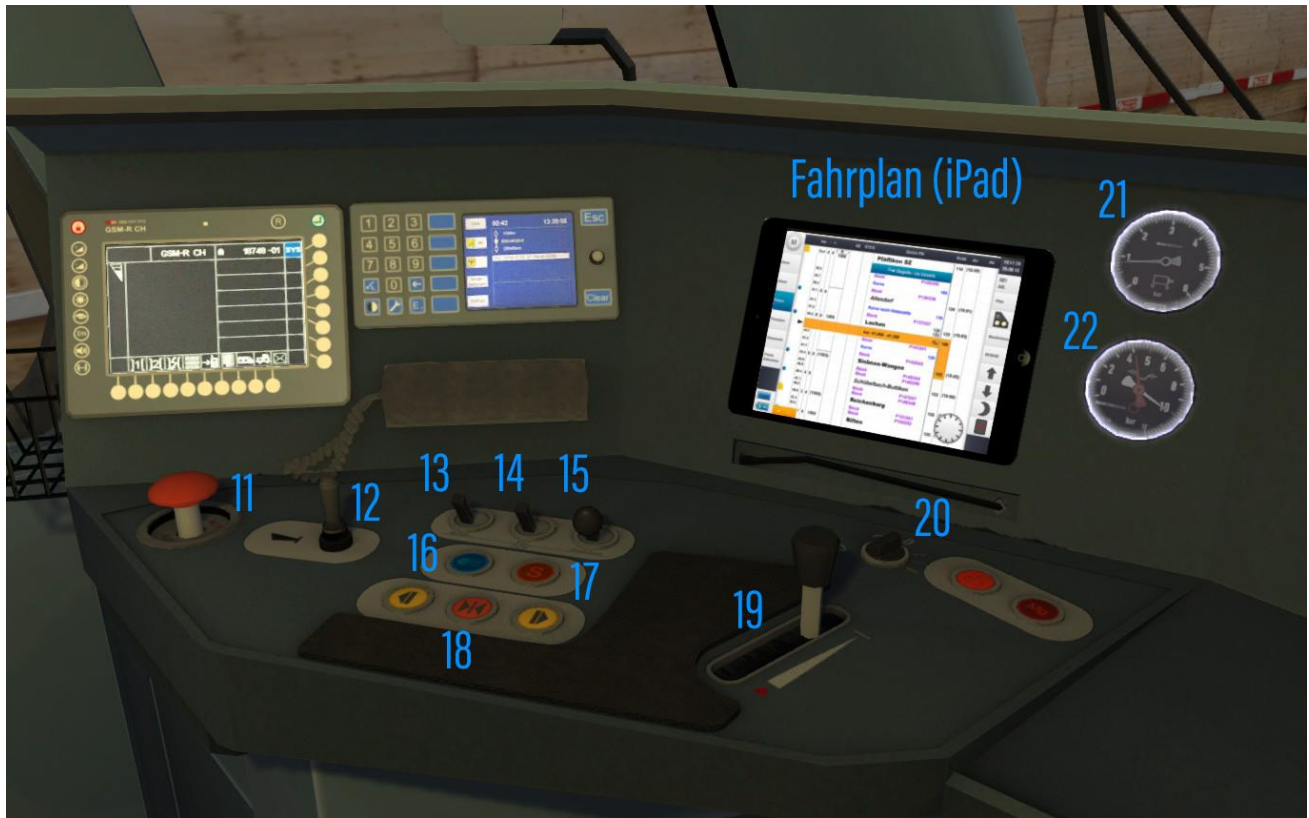
Cab Controls Right Side:



Ref.	Name	Keyboard	
1	Cab Light switch	L	
2	Contact Key	Z	
3	Warning lights switch		
4	Emergency Stop button	Backspace	
5	Horn lever	B	
6	ZUB acknowledge switch	Q	
7	Startup Selector switch (IBS)	Shift-S (Ctrl-Shift-S)	
8	Reverser switch	W (S)	
9	Cruise Control lever	Y (C)	
10	Power and Dynamic Brake lever	A (D)	



## Cab Controls Left Side:



Ref.	Name	Keyboard	
11	Emergency Stop Button	Backspace	
12	Horn lever	B	
13	PZB Befehl button	Numpad -	1*
14	PZB Frei button	Numpad +	1*
15	PZB Wachsam button	Numpad Enter	1*
16	High Beam switch	Ctrl-H	
17	Sander switch	X	
18	Doors lights	T	
19	Train Brake lever	' (;)	
20	Wiper switch	V (Shift-V)	
21	Brake meter dial		
22	Brake meter dial		
Fahrplan (iPad)	Schedule	Shift-F (Ctrl-Shift-F)	You can also drag the iPad screen up/down to switch Schedules.

1\* - Only active when country is set to Germany on selected versions (not released yet).





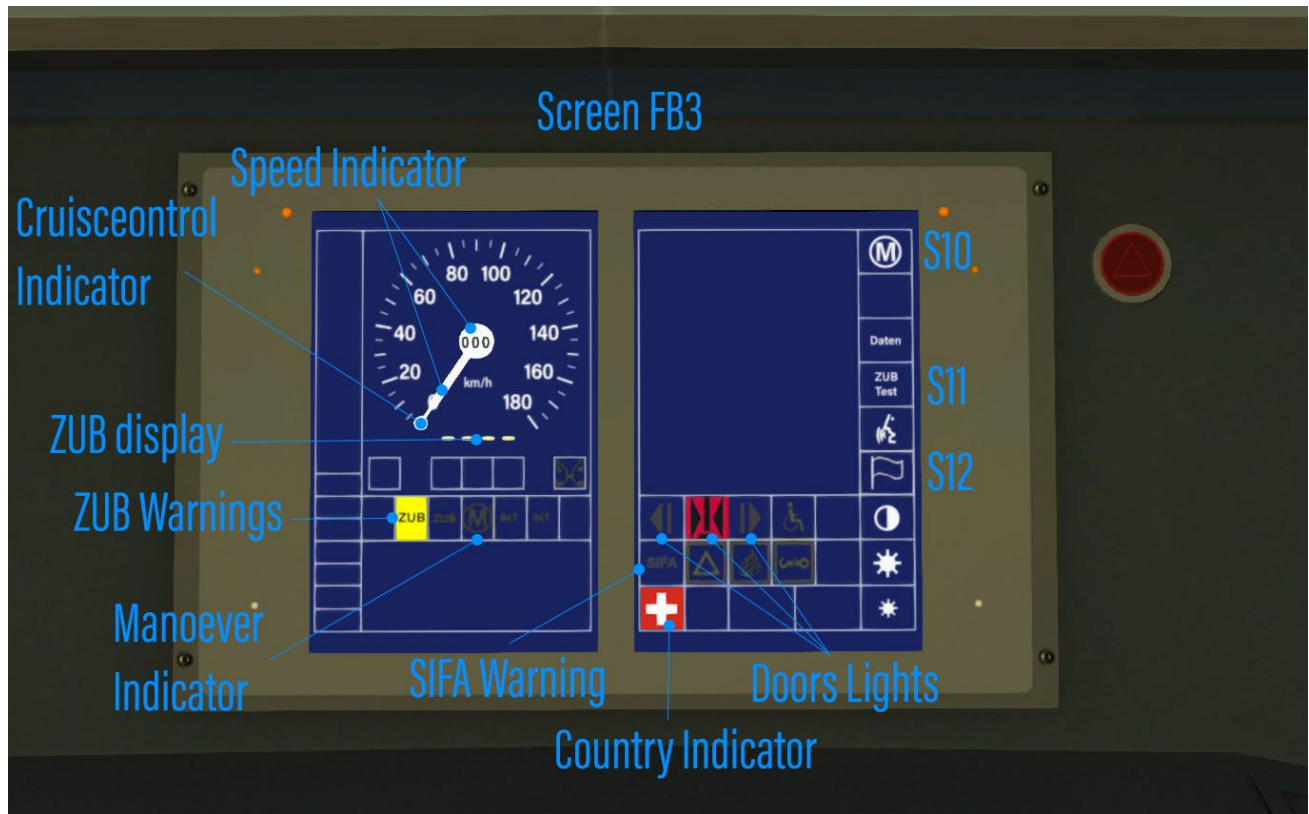
## Screen FB1



Ref.	Name	Action	Keyboard
S1	Panto Choice Screen	Brings up Panto Choice Screen	n.a.
S2	Service Lights	OFF-Forward-Reverse	H (Shift-H)
S3	Mirrors	Open-Close	Ctrl-S
S4	Doors	Open-Close	T
S5	Parking Position (Parkstellung)	P0 = Not Active / P1 = Active	Ctrl-Shift-P



## Screen FB3



Ref.	Name	Function	Keyboard
S10	Manoever screen button	Switch On-Off Manoever mode	M
S11	ZUB test screen button	Start ZUB test and activate ZUB	n.a.
S12	Country choice screen button	Select CH or D *	Ctrl-Shift-C

\* Only available on selected versions (under development)

The FB3 screen shows main information about your current speed, cruise control set speed and shows various warnings for ZUB and SIFA.

- Current speed (V-Ist) is shown by a dial with needle and also digitally in the center
- Cruise Control (Tempomat/V-set) set speed is shown by the 'ball' on the edge of the speedometer.
- ZUB speed is shown (when activated) under the speedometer
- ZUB warnings are shown in the left part of the screen (Yellow = warning, Red = Emergency Brake).
- Maneuver mode indicator is shown in the left part of the screen (lit when active)
- Country selection is only available on selected versions. Indicator on right screen
- Doors lights indicate when doors are locked (red), unlocked (yellow) and or opened (lit yellow).



The Speedometer will turn red when current speed is higher than allowed speed. The Cruise Control 'Ball' will turn red if V-set is higher than the current speed limit.

## 2.1 – Startup

When you enter the cab for the first time, the train is switched off. If you need light you can switch on the cab light (L). Please take the following steps for a normal startup procedure:

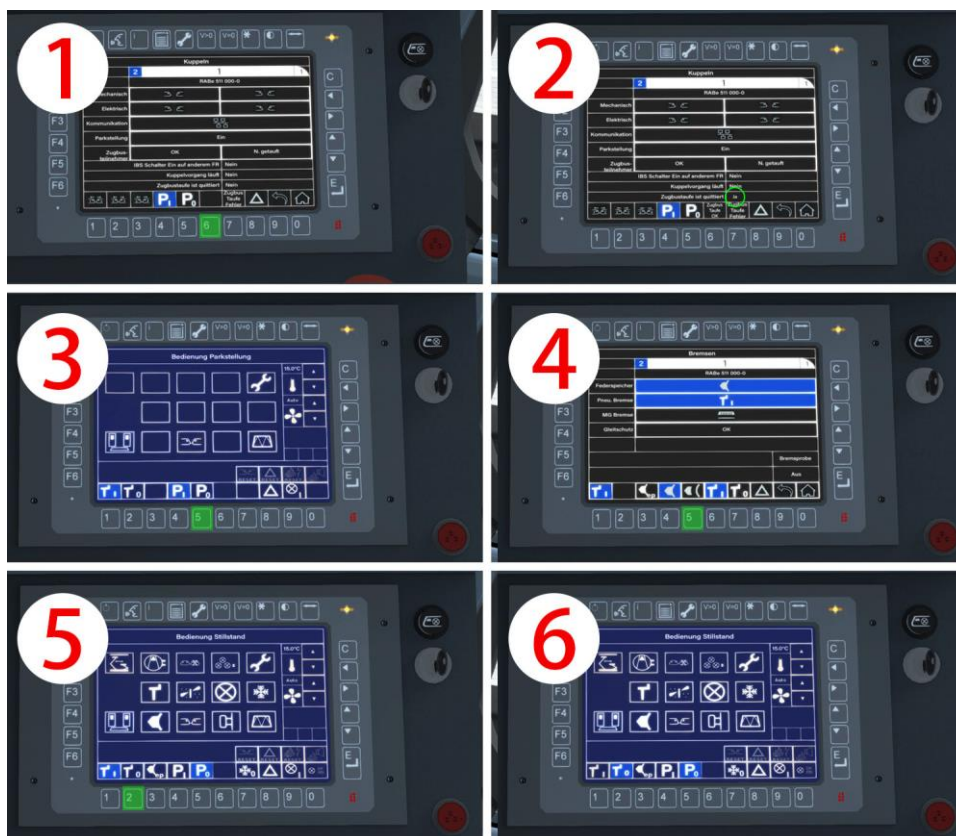


Figure 1

Step	Action	Screen	Keyboard	Ref.	
1	Turn key (switch ON)	n.a.	Z	2	
2	Move startup selector all the way to position 3 (Main Switch ON)	n.a.	Shift-S (Ctrl-Shift-S)	7	
3	Press button 6 to acknowledge Zugtaufe	FB1	n.a.	Figure 1.1	
4	Press button 5 to switch OFF parking mode	FB1	n.a.	Figure 1.3	
5	Press button 5 again to loosen brakes	FB1	n.a.	Figure 1.4	
6	Press button 2 to loosen Handbrake	FB1	n.a.	Figure 1.5	
7	Turn ON service lights	n.a.	H (Shift-H)		
8	Set Reverser to Forward	n.a.	W	8	
9	Set Tempomat to desired speed (Vsoll)	n.a.	Y (C)	9	
10	Move Power/Brake lever forward	n.a.	A (D)	10	



*NOTE: The Parking Position can only be switched ON when one of the Pantographs is up. Switching OFF Parking can only be done when the main switch is active (Startup Selector Position 3).*

## 2.2 – Custom setup

There are some things you can manually control or change during the startup sequence. This paragraph describes these custom controls

### 2.2.1 – Panto choice

When the startup selector is in position 1 you have the possibility to override the automatic panto choice (rear panto up). Press the panto icon on screen FB1 to enter the panto choice screen.



You can now set the active panto to EW1 (default front engine) or EW 6 (default rear engine). You can also go back to 'auto' setting. After choosing your panto set up press the 'C' or 'E-Return' on the right side of screen FB1 to exit the panto choice screen. Switching the startup selector (7) to position 2 (Panto up) will raise the chosen panto.

If you switch the startup selector to position 2 the panto choice screen will automatically be canceled.



## 2.2.2 – Wachsamkeitskontrolle (SIFA)

With the startup selector in position 2 or 3 you can activate the Swiss SIFA system by pressing Shift-7. Activation will be accompanied by the SIFA light on screen FB3 and a short beep. The system will automatically switch from Schnellgang to Langsamgang at 20 Km/h

The Swiss Wachsamkeits system works as follows:

Wachsam	Schnellgang		Langsamgang	
	Warning	Emergency brake	Warning	Emergency brake
Under 100 kmh	50 meter	100 meter	1600 meter	1800 meter
Over 100 kmh	1,5 seconds	3 seconds	48 seconds	54 seconds

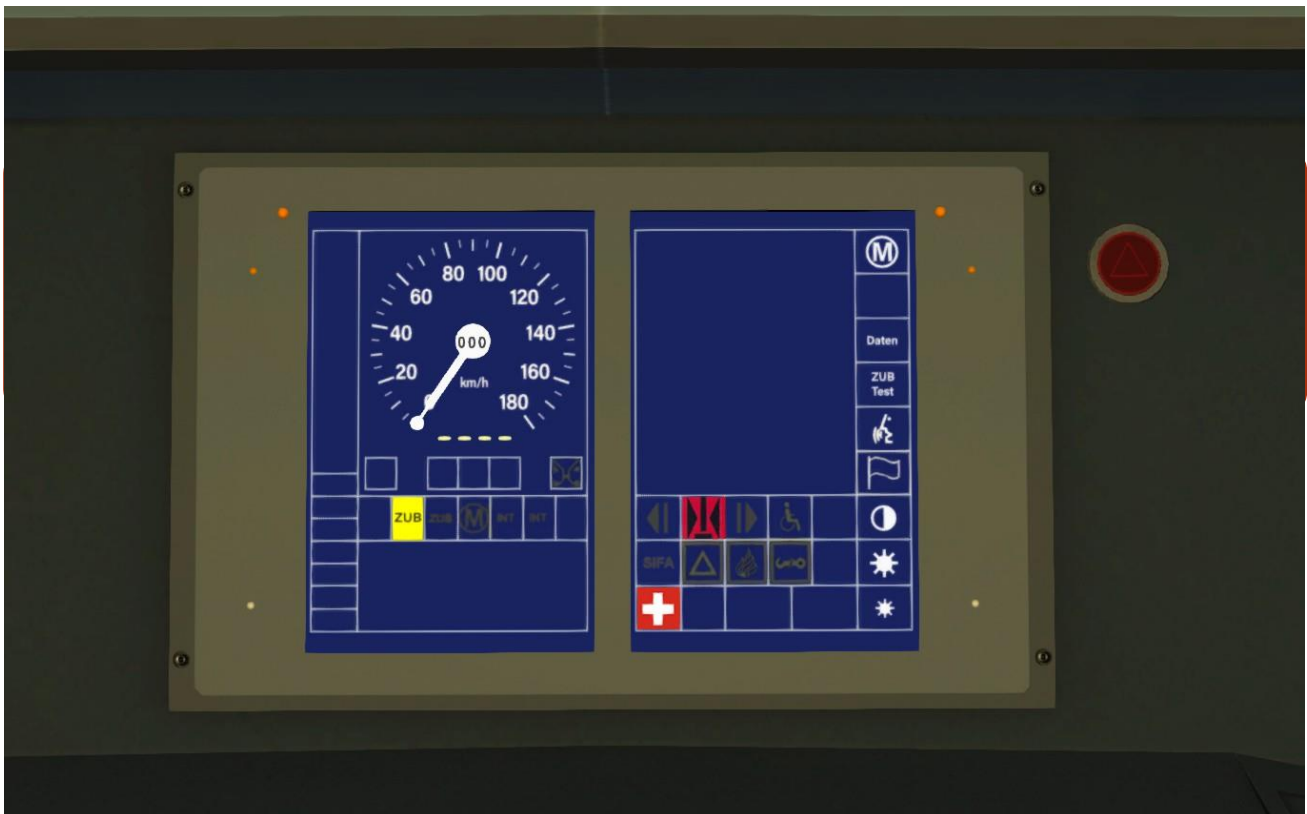




## 2.2.3 – ZUB

The SBB uses a safety system called ZUB which is like the German PZB or Dutch ATB. The ZUB system is simulated in the TwX RABe 511 by using track speeds and signal aspects. This is due to the lack of actual ZUB magnets on TS routes.

To activate ZUB press the ZUB test button on screen FB3 when the main switch is activated. A test sequence is run which ends by an induced emergency brake (Zwangsbremsung). You can override the E-brake by turning the ZUB acknowledge button. Then re-engage the Main switch and loosen the brakes. ZUB is now active which should be shown by the now active ZUB speed indicator digits under the speedometer.



The ZUB speed indicator shows the next restrictive speed (based on track or signal speeds) and sounds a warning signal whenever a restrictive speed lower than the current limit current is coming up. You always have to acknowledge this warning by turning the ZUB button. If there is no (correct) speed indication the display shows '----'.

The system also calculates a brake curve that lowers the speed limit slowly up to the next signal. If you stay under this brake curve you are fine. If you exceed this brake curve ZUB will issue a warning that you need to acknowledge while decreasing your speed until you are under the brake curve again.





A ZUB emergency brake will happen in the following cases:

1. You do not acknowledge a ZUB warning (on time)
2. You exceed the ZUB speed limit by more than 5 km/h
3. You exceed the brake curve more than 5 km/h
4. You pass a red signal

*NOTE: Any emergency stop will switch OFF the main switch. Remember to re-engage the main switch after each emergency stop. Also you need to put the power/brake lever to zero or brake position and press the red button (FB3 panel) to quit the E-brake mode and stop the warning sound.*

## 2.2.4 – Destination boards

You can change the destination boards using Ctrl-F10 (Ctrl-F9). The default destination is 'Geschlossen'. On AI traffic the destination is S16 Flughafen (ZVV) or RE Chur (FV).

The possible destinations are (in sequence):

ZVV		FV	
Line	Destination	Line	Destination
S16	Flughafen	RE	Chur
S16	Zürich HB	RE	Olten
S12	Brugg	IR	Konstanz
S12	Winterthur Seen	RE	Wettingen
S2	Unterterzen	RE	St. Gallen
S2	Zürich Flughafen	RE	Schaffhausen
S8	Winterthur	RE	Zürich HB
S8	Pfäffikon SZ	IR	Bern
	Geschlossen		Geschlossen
	Erzatszug		Erzatszug

Destinations might be added/changed in updates.



## 2.3 – Cab Controls

While driving the RABe 511 you have a range of functions you can use:

Control	Type	Keyboard	Ref.
Wipers	Switch	V (Shift-V)	20
High Beams	Switch	F	16
Horn (Makro)	Lever	B	12
Emergency Stop	Button	Backspace	4,11
Sander	Switch	X	17
Mirrors	On Screen Button	Ctrl-S	
Schedule (iPad)	Drag up-down	Shift-F (Ctrl-Shift-F)	

*NOTE: The High Beams will only be activated when the Headlights are ON (Servicelights)*

## 2.4 – Additional Functions

While in the cab there are several animated functions that are not important for correct operation but 'nice to have':

- You can pull down the shades if you want to block out the sunlight.
- You can open the side windows in 2 positions (ajar/fully opened). Please note that opening the side window will reset the respective shade to rolled up position.
- You can pull down the extra seat attached to the back wall.
- You can open the compartments under the cab desk.
- Roof fans are animated



## 3.0 – Horn (Makro)

The Horn can be operated using one of the levers (5 or 12). The levers have 5 positions:



Position	Sound	
+2	High & Low	
+1	High	
0	OFF	
-1	Low	
-2	Low & High	

The Horn can also be activated by key 'B', this will play a set Horn sound (no choice in High/Low)