



## Introduction

Congratulations! You have purchased the CreativeworX Re 4/4 – Re 420 pack. Please take the time to read this manual before driving off in your new engine. This add-on is CreativeworX's second locomotive release. After the Re 6/6 this was a logical next step. The engine is a bit heavy on polygons which has not showed any issues while testing. On slower computer systems there might be some lagging however. This might be mitigated by changing your graphics settings. I hope you like the product and have many hours of fun with it. This add-on is officially licensed by SBB CFF FFS in Bern Switzerland. For more information and updates please visit : [www.creativeworx.nl](http://www.creativeworx.nl) and like/follow my Facebookpage : <https://www.facebook.com/CreativeworXforTrainsimulator>

## Special thanks

I want to express special thanks to some people without whom this product never would have seen the light. First off all many thanks to Chris Longhurst ([www.christrains.com](http://www.christrains.com)) who has helped numerous times during the building process. I hope to, one day, reach his level of quality on my builds. Thanx Chris! Secondly I want to thank Bruno Lämmli (<http://www.lokifahrer.ch/>) for his consults on Re 4/4 details and controls. Bruno made it possible to make the cab and controls as near as possible to the original engine. Merci Bruno! And last but not least I need to thank my main testers Stefan 'Lemaster101' Gisler, Jürg 'Swisstraindriver' Bertschinger and Michael Aschwanden. These guys have helped me by testing (and positively criticizing) my work time and time again. Danke Schön!

## The original

From Wikipedia:

The Re 420, originally (and still widely called) Re 4/4II, series are the most common electric locomotives of the Swiss Federal Railways. They are used for passenger services throughout Switzerland alone or in pairs. For freight services, they are sometimes paired with the Re 620, especially in mountainous regions. That pairing is referred to by the term Re 10/10. The Re 430, originally known as the Re 4/4III, are a derivative of the Re 420 modified for higher traction but lower speed.

The Re 420 locomotives were produced over a period of 21 years, from 1964 to 1985.

Re 4/4III (Re 430 SBB/Re 436 Private) Subseries:



SBB Re 4/4III 11350 ex SOB Re 4/4 41

When Südostbahn had the opportunity to buy one of the first batch of 50 Re 4/4II locomotives before delivery, it had the gear modified for higher traction and lower speed for the steep routes of the SOB. This locomotive was delivered as number 41 (and is now SBB 11350). Based on the SOB experience, the SBB ordered a batch of 20 Re 4/4III in 1969 for use on the Gotthard route (three of those loks were sold to the SOB in the 1980s and were renumbered Re 4/4 42–44.



Those loks were returned to the SBB between 1996 and 1998 in exchange for the four prototype Re 4/4IV which have since operated as Re 446. The predecessors of Regionalverkehr Mittelland (EBT-VHB-SMB) ordered a total of five Re 4/4III (111–113, 141, 181, later 111–115) that are now working as Re 436 111–115 for Crossrail AG.

Six Re 4/4II (11196 to 11201; later 11195 to 11200) were equipped with a wider pantograph wiper in order to conform with DB and ÖBB standards, which allowed these units to operate EuroCity trains over the border to Bregenz and Lindau. These workings are now covered by the last series, 11371 to 11397, which were rebuilt for use in Germany and Austria, not only with a different pantograph but also Indusi and other things necessary for use abroad. These locomotives are classified Re 421 and are lettered for SBB Cargo but also pull passenger trains to Bregenz and Lindau. (11384 was never converted as it was already withdrawn with fire damage)

30 locomotives of the passenger division (11201–11230) will be rebuilt for peak hour services with double deck cars in S-Bahn Zürich, starting in 2011. A consist will be built up by 6 (7 consists) or 10 (6 consists) double deckers plus one locomotive at each end.

On 1 September 1999 locomotives 11101-155, 181, 191–270 and 299–304 were assigned to SBB passenger division, 11156–171, 11173–180, 11182–190, 11271–298, 11305–311, 11313–349 and 11371–397 to freight division (becoming SBB Cargo afterwards). At the end of 2002 11172" ex-MThB joined the passenger fleet, one year later 11225–264 changed to SBB Cargo. At the end of 2004 11225–230 were changed against 11265–270 and six locomotives sold to BLS (see list). One year later 11102–107 followed and were replaced in the passenger fleet by 11156–159, 161 and 164 from SBB Cargo.

12 locomotives have been withdrawn by 2010, 96 locomotives are owned by the passenger division, 6 by BLS and all others by SBB Cargo

P (Basel shunting duty): 11101 and 11120

P: 11108...159 (44), 11161, 11164, 11172 II (ex MThB 21), 11181, 11191–11230, 11299–11304

SBB Cargo: 420 ... resp.. 11...: 160, 162, 163, 165–171 173–180, 182–190, 231–281, 283–298, 305–311, 313–322, 324–349 and 421 371–381, 383–397

BLS 420 501–506 (ex 11110, 11117, 11119, 11123, 11137 and 11142)

withdrawn:

11113 +31.08.04 accident Zurich Oerlikon 24.10.03

11172 I +31.12.78 accident Vaumarcus 09.12.78

11282 +31.12.75 head on collision with Ae 4/7 10906 near Landquart

11312 +31.10.85 collision at Renens 14.09.85 with Ae 4/7 10940+11011

11323 +01.06.05 fire damage at Steinen 23.03.05

11382 +02.07.02 fire damage 31.01.2002

BLS 420 507-420 512 (ex 11107, 11102–11106)

withdrawn September 2009 as surplus



Re 420 together with an [Re 620](#)

### Type and origin

<b>Power type</b>	Electric
<b>Builder</b>	<a href="#">SLM Winterthur</a> <a href="#">BBC Baden</a> MFO <a href="#">Zürich</a> SAAS <a href="#">Geneva</a>
<b>Build date</b>	1964, 1967–1985
<b>Total produced</b>	277 Re 4/4 <sup>II</sup> 26 Re 4/4 <sup>III</sup>

### Specifications

<a href="#">AAR wheel arr.</a>	B-B
<a href="#">UIC classification</a>	Bo'Bo'
<a href="#">Gauge</a>	1,435 mm (4 ft 8 ½ in)
<b>Length</b>	15,410 mm (50 ft 7 in) over buffers
<b>Width</b>	2,970 mm (9 ft 9 in)
<b>Height</b>	4,500 mm (14 ft 9 in)
<b>Locomotive weight</b>	80–85 tonnes (79–84 long tons; 88–94 short tons)



<b><u>Electric system(s)</u></b>	<a href="#">15 kV 16 <sup>2</sup>/<sub>3</sub> Hz AC Catenary</a>
<b><u>Current collection method</u></b>	<a href="#">Pantograph</a>
<b>Performance figures</b>	
<b>Maximum speed</b>	140 km/h (87 mph) Re 4/4 <sup>II</sup> 125 km/h (78 mph) Re 4/4 <sup>III</sup>
<b>Power output</b>	4,700 kW (6,300 hp)
<b><u>Tractive effort</u></b>	Continuous: 150 kN (34,000 lbf) @105 km/h (65 mph), Maximum: 255 kN (57,000 lbf)
<b><u>Locomotive brake</u></b>	<a href="#">Air</a> and <a href="#">Dynamic</a>
<b>Locomotive brakeforce</b>	135 kN (30,000 lbf)
<b>Career</b>	
<b>Operator(s)</b>	<a href="#">SBB-CFF-FFS</a> , <a href="#">BLS</a>
<b><u>Class</u></b>	Re 4/4 <sup>II</sup> , later Re 420 Re 4/4 <sup>III</sup> , later Re 430
<b>Number(s)</b>	11101–11349, 11371–11397, later SBB 420 101–420 349; 421 371– 421 397, BLS 420 501–420 512; 11350–11370 = 430 350–370 and RM/CR 436 111–115
<b>Disposition</b>	Re 4/4 <sup>II</sup> : 6 withdrawn, 12 sold to BLS, of which 6 withdrawn, 259 in SBB service (2010) Re 4/4 <sup>III</sup> : 21 in SBBC and 5 in CR service

The **Re 420**, originally (and still widely called) **Re 4/4<sup>II</sup>**, series are the most common electric locomotives of the [Swiss Federal Railways](#). They are used for passenger services throughout [Switzerland](#) alone or in pairs. For freight services, they are sometimes paired with the [Re 620](#), especially in mountainous



## Installation

The zip file contains an installer for Trainsimulator 2015, this manual and EULA. Please read the EULA carefully before installing this software. This software is PAYWARE and may not be redistributed in any way or form without written consent from the author (CreativeworX).

1. Start the installer : RE44P\_Vx\_installer.exe (Platinum Pack). The x is the current version.
2. Your new assets will now be installed in the 'CreativeworX' assets folder and the manual in the Manuals folder.
3. If you want to use these engines in your scenario please make sure you activate 'CreativeworX-Railsimulator' in the assets box (on the right)





## Included versions

This pack includes 12 versions of the Re 420:

21 Mittel-Thurgau-Bahn

11109 Swiss Express

11161 (Green)

11194 (Red)

11195 (Red)

11252 TEE

11320 InterregioCargo

420 225 LION

420 230 LION

420 165 SBB Cargo

420 186 SBB Cargo

Re 4/4 506 BLS

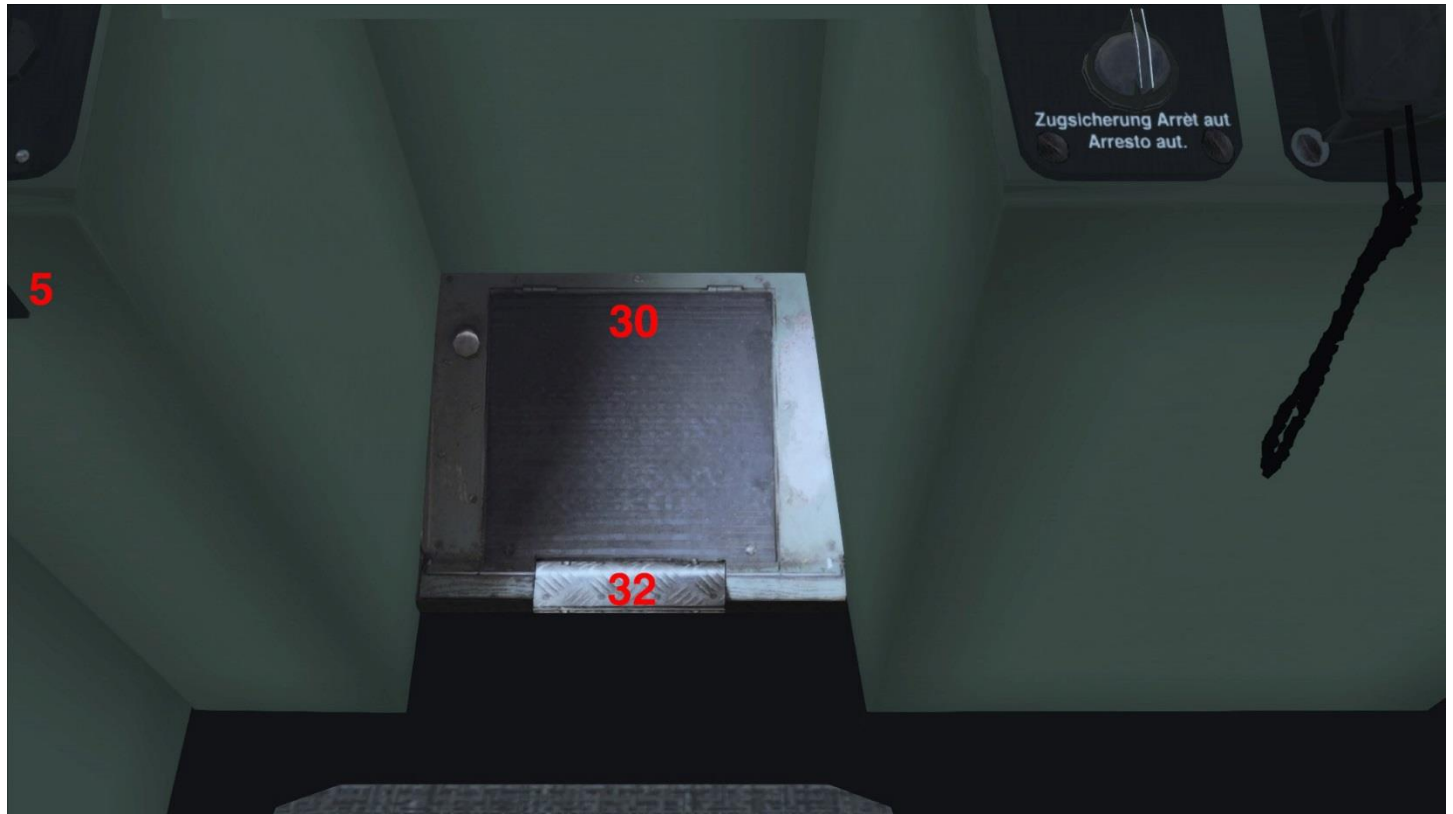
The 11194 (Red), 420 165 (Cargo) and 420 225 (LION) are also available as IA traffic with front panto raised (FP). This can be used in scenarios when the engine is the front part of an AI Re 10/10 or when tank wagons or car transport is pulled. These versions have no taillights activated.

## Driver

A CreativeworX driver is present in the front cab.

## Controls

The pack comes with a fully functional Re 4/4 Cab. This is the R1 (early models) cab without ECTS which is used for all versions (also R2,R3) in this add-on. This is NOT the correct version for all engines included in this pack. I might update it to include newer versions later. Below you can find an explanation of the controls:









<b>Nr.</b>	<b>English</b>	<b>German</b>
1	Left Wiper	Wischer links
2	Right Wiper	Wischer rechts
3	Trainbrake	Zugbremse
4	Enginebrake	Locobremse
5	Sander	Sand
6	Warninglight incorrect speeddisplay	Warnlampe kein ZUB angabe
7	Speedometer	Geschwindigkeitsanzeige
8	Max speed (Track)	Maximale Geschwindigkeit (von Spur)
9	ZUB (AWS) warninglight	ZUB Lampe
10	Servicelights	Dienstbeleuchtung
11	Compressor	Kompressor
12	Main switch	Hauptschalter
13	Panto up/down	Pantograf ab/zu
14	Highbeam	Fernlicht
15	Warninglight wheelslip	Schleuderlampe
16	Light 'Stufenschalter'	Stufenschalterlampe
17	ZUB Manouver switch (overrule AWS, max speed 40km/h)	Manoever Schalter
18	Instrumentlights	Instumentenlicht
19	Reverser	Wendeschalter
20	Horn	Zugpiff
21	Combined Regulator/Dynamic brake	Fahrhebel (Rekuperations Bremse)
22	AWS acknowledgement (ZUB)	ZUB sicherungs freigabe
23	Taillight switch 1 (White-Off-Red-Off)	Stirnlicht 1 (Weiss-Aus-Rot-Aus)
24	Taillight switch 2 (White-Off-Red-Off)	Stirnlicht 2 (Weiss-Aus-Rot-Aus)
25	Taillight switch 3 (White-Off-Red-Off)	Stirnlicht 3 (Weiss-Aus-Rot-Aus)
26	Cabligh	Fuehrerstandlampe
27	Schedulelight	Fahrplanlampe
28	Shades	Rollos
29	Handbrake	Handbremse
30	Vigilancepedal	Wachsamkeitskontrollepedal
31	Scheduleholder	Fahrplanhalter
32	Mirror pedal	Spiegel Pedal



Use US international keyboard setting

Keyboard controls:

KeyMapping SBB CFF FFS Re 420 - CreativeworX								
Function	Funktion	Group		QWERTY	AZERTY	Action	Aktion	
AWS	Zugbeeinflussung	Safety		Q	Q	Acknowledge	Betätigung	
Cabinelight	Fuehrerstandlampe	Lights		Shift L	L	Forward-ON	Vorwärts-EIN	
<i>Cabinelight</i>	<i>Fuehrerstandlampe</i>	<i>Lights</i>		Ctrl L	L	Backward-OFF	Rückwärts-AUS	
Combined Throttle D-Brake	Fahrschalter (Rekuperationsbremse)	Drive		A	A	Forward	Vorwärts	
<i>Combined Throttle D-Brake</i>	<i>Fahrschalter (Rekuperationsbremse)</i>	<i>Drive</i>		D	D	Backward	Rückwärts	
Compressor	Kompressor	Electric		Shift Apostrophe (')	Ã	ON-OFF	EIN-AUS	
Driving Current	Steuerstrom	Electric	Shift	S	S	ON-OFF	EIN-AUS	
Emergency Brake	Notbremse	Brakes		Backspace	Backspace	ON	EIN	
Enginebrake	Rangier(Zug)bremse	Brakes		Hook right (])	+-	Increase	Mehr	
<i>Enginebrake</i>	<i>Rangier(Zug)bremse</i>	<i>Brakes</i>		Hook left ([)	Ü	Decrease	Weniger	
Handbrake	Feststellbremse	Brakes		Slash (/)	-	ON-OFF	EIN-AUS	
Highbeam	Fernlicht	Lights		H	H	ON-OFF	EIN-AUS	
Horn	Pfeife	Safety		B	B	ON	EIN	
Instrumentlight	Instrumentenlicht	Lights	Ctrl	I	I	Forward-ON	Vorwärts-EIN	
<i>Instrumentlight</i>	<i>Instrumentenlicht</i>	<i>Lights</i>	Ctrl Shift	I	I	Backward-OFF	Rückwärts-AUS	
Main Switch	Hauptschalter	Electric		Z	Z	ON-OFF	EIN-AUS	
Panto	Pantograph	Electric		P	P	Up-Down	Oben-Unten	
Panto Arcing Override	Pantograph Blitz	Electric	Ctrl Shift	A	A	OFF-ON	AUS-EIN	
Panto Choice	Pantograph Wahl	Electric	Shift	P	P	Front-Rear	Vorne-Hinten	
Rearlight 1	Stirnlicht 1	Lights	Ctrl	1	1	Turn CW	Linksherum	
<i>Rearlight 1</i>	<i>Stirnlicht 1</i>	<i>Lights</i>	Ctrl Shift	1	1	Turn CCW	Rechtsherum	
Rearlight 2	Stirnlicht 2	Lights	Ctrl	2	2	Turn CW	Linksherum	
<i>Rearlight 2</i>	<i>Stirnlicht 2</i>	<i>Lights</i>	Ctrl Shift	2	2	Turn CCW	Rechtsherum	
Rearlight 3	Stirnlicht 3	Lights	Ctrl	3	3	Turn CW	Linksherum	
<i>Rearlight 3</i>	<i>Stirnlicht 3</i>	<i>Lights</i>	Ctrl Shift	3	3	Turn CCW	Rechtsherum	
Rearview mirrors	Spiegel	Safety	Ctrl	S	S	Deploy/Fold	Aus/Einklappen	
Reverser	Wendeschalter	Drive		W	W	Forward	Vorwärts	
<i>Reverser</i>	<i>Wendeschalter</i>	<i>Drive</i>		S	S	Backward	Rückwärts	
Sander	Zand	Drive		X	X	ON	EIN	
Schedulechoice	Fahrplanwahl	Safety		F	F	Next	Nächste	
<i>Schedulechoice</i>	<i>Fahrplanwahl</i>	<i>Safety</i>	Shift	F	F	Previous	Letzte	
Schedulelight	Fahrplanlicht	Lights	Ctrl	F10	F10	ON-OFF	EIN-AUS	
Servicelights	Dienstbeleuchtung	Lights	Ctrl	D	D	Forward-ON	Vorwärts-EIN	
<i>Servicelights</i>	<i>Dienstbeleuchtung</i>	<i>Lights</i>	Ctrl Shift	D	D	Backward-OFF	Rückwärts-AUS	
Train Brake	Zugbremse	Brakes		] ]	] ]	Increase	Mehr	
<i>Train Brake</i>	<i>Zugbremse</i>	<i>Brakes</i>		] ]	] ]	Decrease	Weniger	
Vigilance safety acknowlegement	Wachsamkeitskontrolle Betätigung	Safety		Space	Space	Activate	Betätigung	
Vigilance safety pedal	Wachsamkeitspedal	Safety	Ctrl	Space	Space	ON-OFF	EIN-AUS	
Vigilance system	Wachsamkeitskontrolle	Safety	Shift	7	7	ON-OFF	EIN-AUS	
Wiper Left	Wischer Links	Safety		C	C	OFF-SLOW-FAST	EIN-AUS	
<i>Wiper Left</i>	<i>Wischer Links</i>	<i>Safety</i>	Ctrl	C	C	FAST-SLOW-OFF	EIN-AUS	
Wiper Right	Wischer Rechts	Safety		V	V	OFF-SLOW-FAST	EIN-AUS	
<i>Wiper Right</i>	<i>Wischer Rechts</i>	<i>Safety</i>	Ctrl	V	V	FAST-SLOW-OFF	EIN-AUS	
Zug-Manoever	Zug-Manoever	Safety	Ctrl	M	M	ON-OFF	EIN-AUS	



## First steps

After entering the cabine you should at least take the following steps to get moving:

1. Steuerstrom ON (Ctrl-S)
2. Mainswitch ON (Z)
3. Panto UP (P)
4. Reverser Forward (W)
5. Locobrake OFF (I)

## Wachsamkeitskontrolle

The SBB has a 'sifa' type vigilance system called 'wachsamkeitskontrolle'. This system is distance based (not time based as German sifa is). Switch the system on by pressing **Shift-7**.

After 50 Meters : Visual warning

After 100 Meters : Emergencybrake with buzzer

When pressing the pedal (simulated by Ctrl-Spacebar) the distances change:

After 1600 Meters : Visual warning

After 1800 Meters : Emergencybrake with buzzer

The system is reset by pressing the **spacebar** (Acknowledge) or by moving the regulator or trainbrakehandle.

## Manöver

Pressing the 'Manöver' switch will make it possible to pass red signals without SPAD or Emergencybrake. You have to stay under 40 Km/h (warning). This is normally used when shunting.

## Panto Arcing

When the season is set to 'Winter' the Panto's will have an arcing effect where it touches the catenary. You can switch this off (active engine) by pressing Ctrl-Shift-A.

## Copyrights and Licensing

### PAYWARE

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## REPAINTING/RESKINNING

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