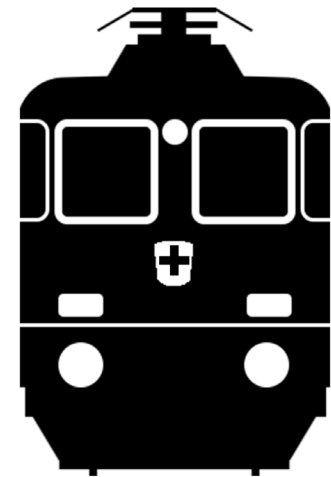


The SBB CFF FFS IC 2020 Version 1.0

QUICK GUIDE



TrainworX
Swiss Trainsimulator Addons

Quick guide

- These slides will take you through the most important functions of the SBB IC 2020 Pack for TS 20XX



SBB CFF FFS

IC 2020 Dostos V 1.0



TrainworX
Swiss Trainsimulator Addons

Quick guide – Re 460 / IC 2020 Bt



Startup (Re 460 and Bt)

1. Go into the cab (press 1)
 2. Turn **KEY** switch to the right (Shift-S)
 3. Push **PANTOGRAPH** switch (P)*
 4. Push **MAIN** switch (Z)*
 5. Switch OFF **Parkmode** (White Button with P)
 6. Set **Tempomat** to desired speed (Y)
- After turning the key, within 3 seconds you can press the Main Switch to automatically raise the Panto(s).

You will hear the mainswitch engage (Re 460) and a test sequence for the warning lights will be initiated.

The rear panto (default) will be raised after Park Mode is OFF. You can switch to another panto by pressing **Shift-P** or **Ctrl-Shift-P** (Rear – Front – Both).



The engine is now ready for operation.

Quick guide – Re 460 / IC 2020 Bt



Startup

You can bypass the startup procedure by pressing:

CTRL-SHIFT-S

- Key On
- Panto Up
- Mains On
- Reverser Fwd
- Trainbrake Fahrstellung
- Vsoll / Tempomat at 40 km/h
- Wachsam ON (Switch OFF with Shift-7)



Quick guide – Re 460 / IC 2020 Bt



Parkmode

When leaving the cabine shortly (for example to change the driving direction) or parking at the station , the '**Parkstellung**' (Ctrl-P) can be engaged.

- Both Front and Tail have one white light on.
- Both Pantographs are UP.
- PMS brakes will be activated.



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Lights

Lights will be in **AUTO** at start. The engine will set the correct lighting automatically.



Quick guide – Re 460 / IC 2020 Bt



High Beam and Cablights

Press the 'Blue High Beam' button (Ctrl-F) to switch on the **HIGH BEAM**.

There are several other lights in the cabine:

CAB LIGHT (I)

INSTRUMENT LIGHTS (i/ Shift-i)

SCHEDULE LIGHT (Ctrl-I)



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Wipers

The wipers have several positions:

WIPERSWITCH (V / Shift-V)

Sequence:

Off <-> Slow <-> Fast

Switching the wipers off will 'Auto-park' them to the OFF position.



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Brakes

Before driving make sure all brakes are off:

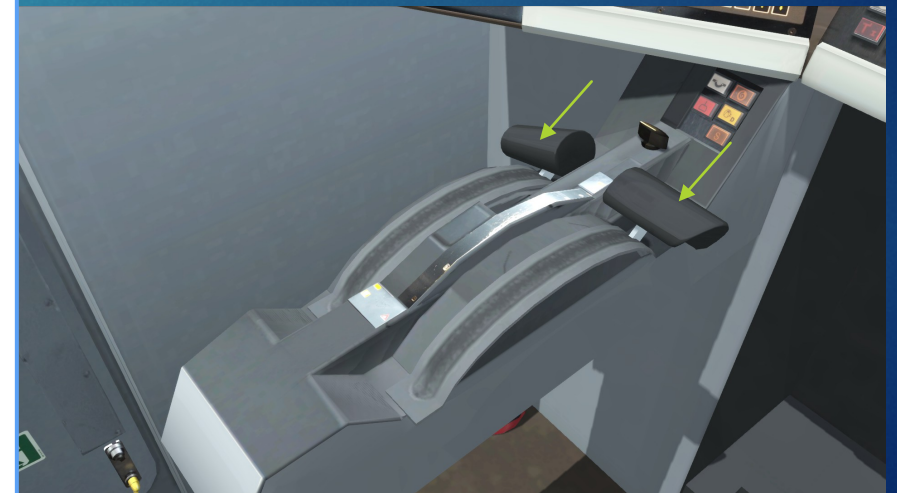
Loco brake ([&]) – default = off

Train brake (; & ') – default = off

PMS brake (shift-M & shift-ctrl-M) – default = off

The trainbrake has 6 positions:

1. Abschlussstellung - Park
2. Fuellstellung – Fill/Prime
3. Fahrstellung - Drive
4. 1. Bremsstellung - Brake
5. 1. Vollbremsstellung – Suppression 1
6. 2. Vollbremsstellung – Suppression 2
7. Schnellbremsung - Emergencybrake



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Brakes

The **PMS brakes** (Permanent Magnet Bremse) are large brake pads that are lowered on to the rails to arrest the engine.

Switch **ON** by pressing the red PMS button (Shift-M).

Switch **OFF** by pressing the green PMS button (Shift-Ctrl-M).

It takes some time for the brakes to engage or loosen.



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Reverser and Combined Throttle-Brake

To move **forward** push the Wendehebel up (W), to **reverse** pull down (S). The middle position (0) is **neutral**.

The **FAHRHEBEL** is a combined **throttle** and **dynamic brake**:

Push forward to **increase** throttle (A)

Pull backwards to **decrease** throttle (D)

Above the middle (zero) position is throttle, below the middle position is dynamic brake.



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V-soll / Tempomat (Speedcontrol) (1)

The Re 460 has a so called '**V-soll**' control.

This lever will try to keep the speed of the train to the set speed which is shown by the 'dot' on the ETCS screen.

Moving the **V-soll lever** forward (**Y**) increases the desired speed. Pulling it back (**C**) decreases it.

It is always working together with the **Fahrhebel** (regulator). Without power the train will not reach V-soll. Too much power might overshoot the V-soll speed. It takes gentle handling to make it a smooth ride.

When **V-soll** is at zero and power is applied, max. speed will be 1 km/h. This mode can be used for **Coupling**.



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TrainworX

Mirrors, Sander, Horn

The **MIRRORS** can be deployed / closed by pressing Ctrl-S.

The **SANDER** (X) is located on the left control arm. It can be used to increase traction on slippery tracks.

The **HORN** or **TYPHON** (B) is located on the right control arm.



Quick guide – Re 460 / IC 2020 Bt



Wachsamkeitskontrolle

The Re 460 has a **deadmans safety** system which is like a distance-distance **SIFA**. When the system is switched on (Shift-7) it is in '**Schnellgang**' (fast mode). This is used during shunting. A warning will sound after **50 meter**. To prevent this the driver needs to press the **pedal** (Space) before that or quickly after the warning. If the driver fails to press the pedal an **emergency braking** will occur after **100 meter**.

When the speed is over 20 kmh the system goes into '**Langsamgang**' (slow mode). Now the warning sounds after **1600 meter**. The driver must move the Throttle or Trainbrake or press the pedal (Space) before 1800 meter

When speed is over 100 kmh the system will switch to **time mode**. The warning comes after **30 sec.** and an E-brake will occur after **35 sec.**



Failing to correctly operate the Wachsamkeitskontrolle causes
An audible **warning** and eventually an **emergency stop**.

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ZUB (AWS) Zugsicherung

PZB is not used in Switzerland. The engine does have a ZUB safety system however. This TS engine has a hybrid ZUB system for use on all types of routes.

1. **Default AWS system** (no ZUB activation, just warnings on restrictive signals/speeds)
2. **Emulated ZUB** (ZUB activation, no magnets but functional ZUB display and braking curves)
3. **ZUB magnets pickup** (ZUB activation, Rivet Games magnets picked up automatically switches the system. This is closest to the real thing)



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ZUB (AWS) Zugsicherung

To activate the ZUB system you need to press the **green ZUB button** after starting up your engine. A test sequence will now start which at the end creates a brake test. Press the **red ZUB button** to release and activate the system.

After pressing the red ZUB button please re-engage the main switch and prepare for driving.



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ZUB (AWS) Zugsicherung

When passing a signal which shows a limited speed the **ZUB light** lights up and a **buzzer** sounds. The driver needs to turn the **Zugsicherung knob** (Q) to override the warning and slow down.

When passing a **red signal** the **emergency brake** is applied instantly except when the '**manoever**' mode (Ctrl-M) is active.

When reaching **overspeed** the system also warns you by sounding an alarm which can be reset with the **ZUB button** again **after slowing down**.



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ZUB (AWS) Zugsicherung

The ZUB display shows the next speedlimit when lower than the current limit. You need to watch the signals carefully to stay within the limits.

The system also calculates a brakecurve when the route permits. The correct working of speedwarnings and brakecurves is highly dependant on the route and will not always work correctly.

When you need to be released of a 'stop' warning (for instance when the signal changes to something else than red), you can turn the ZUB switch to the left. This will make it possible to drive past the signal (max. 40 km/h).



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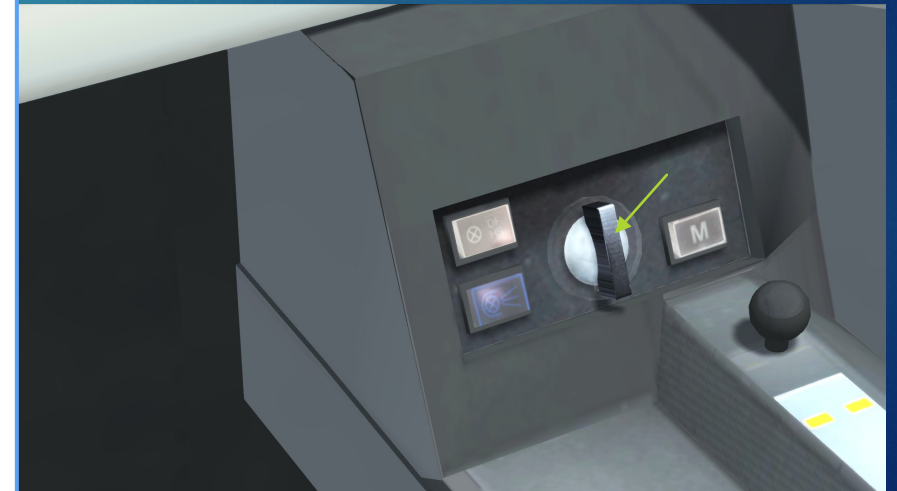


Manoeuvre mode

When **shunting** or needing to **pass a red light** at low speed, the driver can switch off the Zugsicherung temporarily by engaging the '**Manoeuvre**' mode (Ctrl-M).

When active the Manoeuvre light comes on and the **speedlimit** is now 40 Km/h. It is now possible to pass a red signal without causing an emergencybrake.

On passing a red signal in this mode the **ZUB buzzer** and light will sound 3 times.



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Schedules

You can activate the iPad to show various (Swiss) schedules.

Slide the iPad screen Up-Down or Press 'F' and 'Shift-F' to activate and change the schedules.

There is a choice of schedules* for:

Zuerich-Olten
SBB route 1
Lake Constance

*The shown times are fixed.



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- ▶ Have fun driving the IC2020!

If you have any further questions please read the full manual or press the green HELP tab on our website:

WWW.TRAINWORX.NL

The IC 2020 is available in the webshop:

<https://www.trainworx.nl/product/ic2020/>