

Train Sim World

Safety System Guide

For use with the Video Guide.

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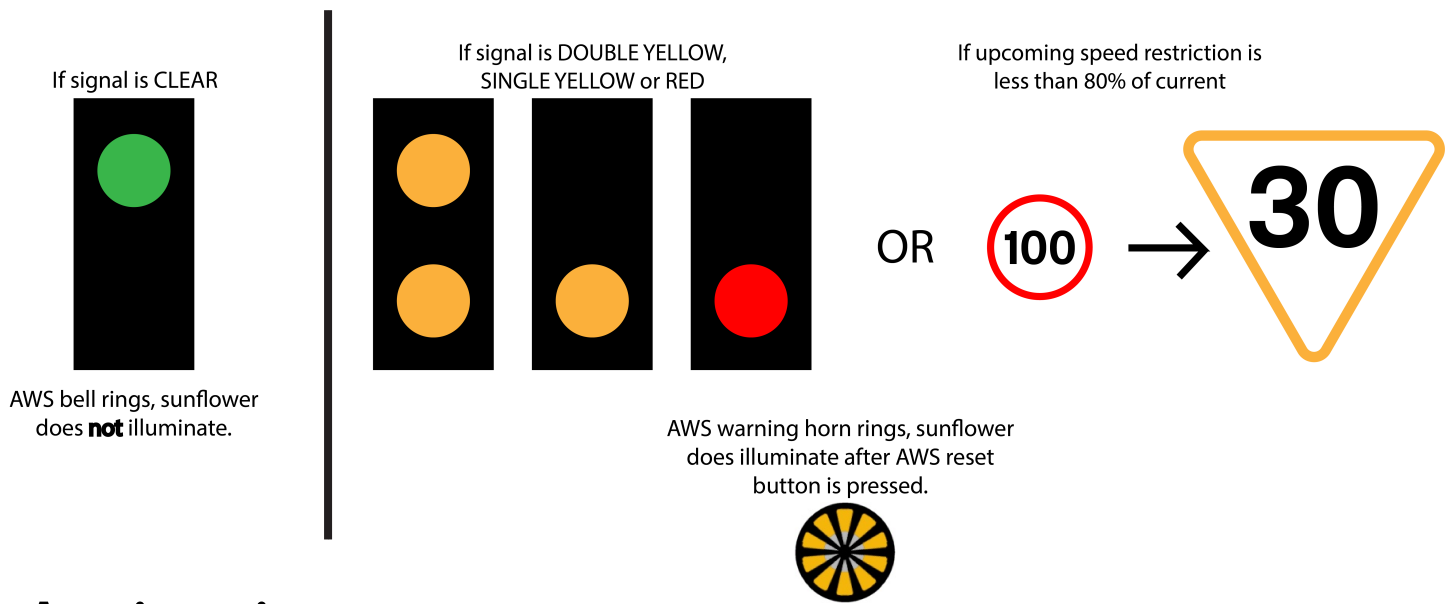
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AWS Summary



Activation:

CTRL + ENTER

Description:

Alerts driver to upcoming double yellow, yellow or red signal or upcoming speed restriction (Morpeth board).

Action:

When AWS is on and reverser moved away from OFF, the AWS warning horn sounds until driver presses AWS reset ([Q] on keyboard). The AWS bell then rings and the sunflower is lit.

When passing a green signal, the AWS bell rings and sunflower becomes unlit. No action is required from driver.

When passing a signal that is not green, the AWS warning horn sounds until driver presses AWS reset ([Q] on keyboard). The sunflower becomes lit.

Emergency Brake When:

Driver fails to press AWS reset ([Q] on keyboard) within 2 seconds of AWS warning horn sounding.

DSD Vigilance Summary

Activation:

SHIFT + ENTER

Description:

Ensures driver is alert.

Action:

When system is unisolated, if no controls have been moved for a certain period of time (between 30 - 45 seconds), a distinct warning tone is sounded. It must be reset by pressing [Q] on the keyboard.

Emergency Brake When:

Driver fails to reset ([Q] on keyboard) within 2 seconds of DSD warning tone sounding.

TVM Summary



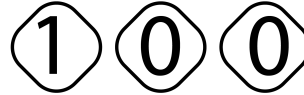
The line speed is your maximum permitted speed- in this case 200km/h

If flashing: expect reduction at next signal block.



Your maximum permitted speed is lower than line speed (due to diverging route etc)- in this case 100km/h

If flashing: expect reduction at next signal block.



The number displayed is the maximum speed from the **next** signal block

If flashing: expect reduction at next signal block.



Stop at the next signal block marker



Stop now!

Signal Block Marker



Activation:

CTRL + ENTER

Description:

Informs driver of maximum permitted speed on high speed routes where colour-light signals would not be feasible.

Action:

Drive at or below the speed shown on the display. Green squares mean you are permitted to travel at line speed. Black squares mean you are permitted to travel at a speed less than line speed. White diamonds mean you must slow to the speed displayed at the next signal block marker. Red diamonds mean stop by the next signal block marker. Red squares mean initiate an emergency brake application now.

Emergency Brake When:

Driver travels >20km/h over displayed speed

KVB Summary

Activation:

CTRL + ENTER

Description:

Monitors speed of train to ensure SPADs or overspeeds are avoided.

Action:

Excercise defensive driving. Always remain below the maximum speed and be prepared to slow for further reductions or adverse signals.

Emergency Brake When:

Driver travels over speed limit or approaches a signal at danger too fast

Vigilance (Generic) Summary

Activation:

SHIFT + ENTER

Description:

Ensures driver is alert.

Action:

When system is unisolated, if no controls have been moved for a certain period of time* (between 30 - 45 seconds), a distinct warning tone is sounded. It must be reset by pressing [Q] on the keyboard.

SIFA does not monitor controls. It will sound a warning whether or not controls have been moved.

Emergency Brake When:

Driver fails to reset ([Q] on keyboard) within 2-3 seconds of warning tone sounding.

ETCS Summary

Activation:

Button 0 on the display shown below (only on Luzern - Sursee).

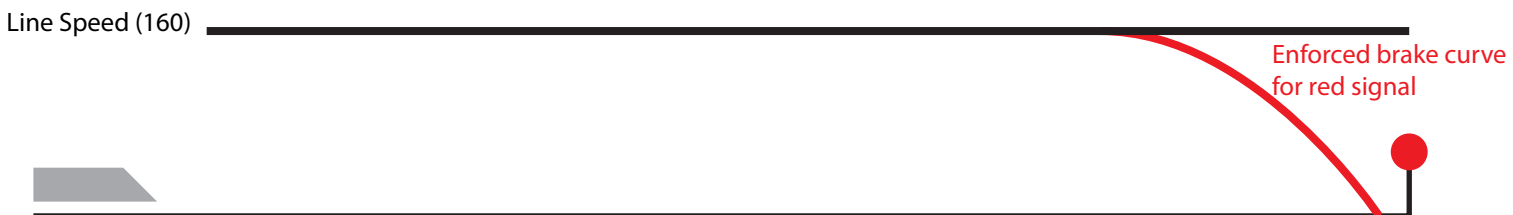


Description:

Informs driver of maximum permitted speed and monitors for overspeeds.

Action:

Drive at or below the speed shown on the display. If two beeps are heard, expect a reduction in speed. Note that unlike TVM, ETCS shows maximum speed exact, and when it decreases it moves smoothly around the speedometer, as it follows the brake curve.



Emergency Brake When:

Driver travels $>10\text{km/h}$ over displayed speed. Overspeeds are warned by two beeps, in a rising tone.

PZB Summary

Modes	Use	
85	Passenger	1000hz
70	Light freight	500hz
55	Heavy freight	

Activation:

CTRL + ENTER

Description:

Ensures drivers are aware of upcoming adverse signals and speed restrictions.

Action:

On Start: Stay below 40km/h. Once moving, press PZB release (keyboard END). Then you can advance to line speed.

If you pass a signal that is not all green/white, you must press PZB acknowledge (keyboard PAGE DOWN). If the 1000hz yellow lamp illuminates, reduce speed without delay to below 85, 70 or 55km/h depending on the mode you start in (see above).

On approach to a red signal, stay below 40km/h. The 500hz red lamp should illuminate.

Emergency Brake When:

Driver travels fails to acknowledge signal or speed restriction, or exceeds 85, 70, 55km/h or 45km/h on start or approaching a red signal.

LZB Summary



Activation:

CTRL + ENTER

Description:

Informs driver of maximum permitted speed on high speed routes where colour-light signals are hard to see.

Action:

Drive at or below the speed shown on the display. if AFB is on (keyboard CTRL + R, or in ICE on left hand display screen under 'AFB') the train will automatically follow LZB's maximum speed.

At the end of LZB supervision ENDE will flash, requiring the driver to press PZB release (keyboard END). After leaving LZB areas, a buzzer will sound and power must be shut off before reapplying.

Emergency Brake When:

Driver travels over displayed speed.

ACSES/ATC Summary

Activation:

CTRL + ENTER

Description:

Informs driver of maximum permitted speed where speeds exceed 79mph.

Action:

Drive at or below the speed shown on the display. If the speed drops, you must slow to the new speed by using the suppression brake notch.

Emergency Brake When:

Driver travels over displayed speed.