

Railworks Austria – Skyhook Games

ÖBB 1014 Manual



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Introduction



After the fall of the iron curtain at the end of the 1980's the ÖBB needed a locomotive that was capable of driving into these newly opened countries. The 1014 series was specifically designed to deal with all the different overhead wiring systems, safety systems and electrification systems.

It entered service in 1993 and mostly pulled Eurocity and Intercity trains connecting Eastern- and Western Europe. At the beginning of its life the loco was almost exclusively used on the South- and Northern Railway line in Vienna. Later on the loco could be seen pretty much anywhere in Austria and its neighbouring countries.

The loco weighs 74 tons, has a maximum speed of 174 kph and a power output of 3000 kW.

This product was designed by Railworks Austria and Skyhook Games with tremendous support by the Austrian Federal Railways (ÖBB).

1014 cab and key bindings



1 – Pantograph [P / Ctrl-Shift-P]	11 – Speed limiter [Y / C]
2 – Main switch [Z / Ctrl-Z]	12 – Power Controller [A / D]
3 – Engine fan [K / Shift+K]	13 – Door indicator [Closing doors– R]
4 – Train heating [O]	14 – Door selector [Off/On – Ctrl+Shift+T]
5 – Instrument lights [I]	15 – Voltmeter (Pantograph)
6 – Cab lights [L]	16 – Power indicator
7 – High beam lights [Ctrl + H]	17 – Speed indicator
8 – Horn [High - Spacebar / Low - B]	18 – Brake pressure indicator
9 – Sander [X]	19 – Digital display
10 – Reverser [W / S]	20 – Speed limiter – Target speed
	21 – Train brake lever [# / ;]

Other key assignments relevant for this screen

Wipers [V]
Sifa Off / On [Ctrl-Shift-S]
Sifa switch [Numpad Enter]
PZB/Indusi Off / On [Ctrl-Shift-A]
Battery main switch [Shift-B / Ctrl-B]



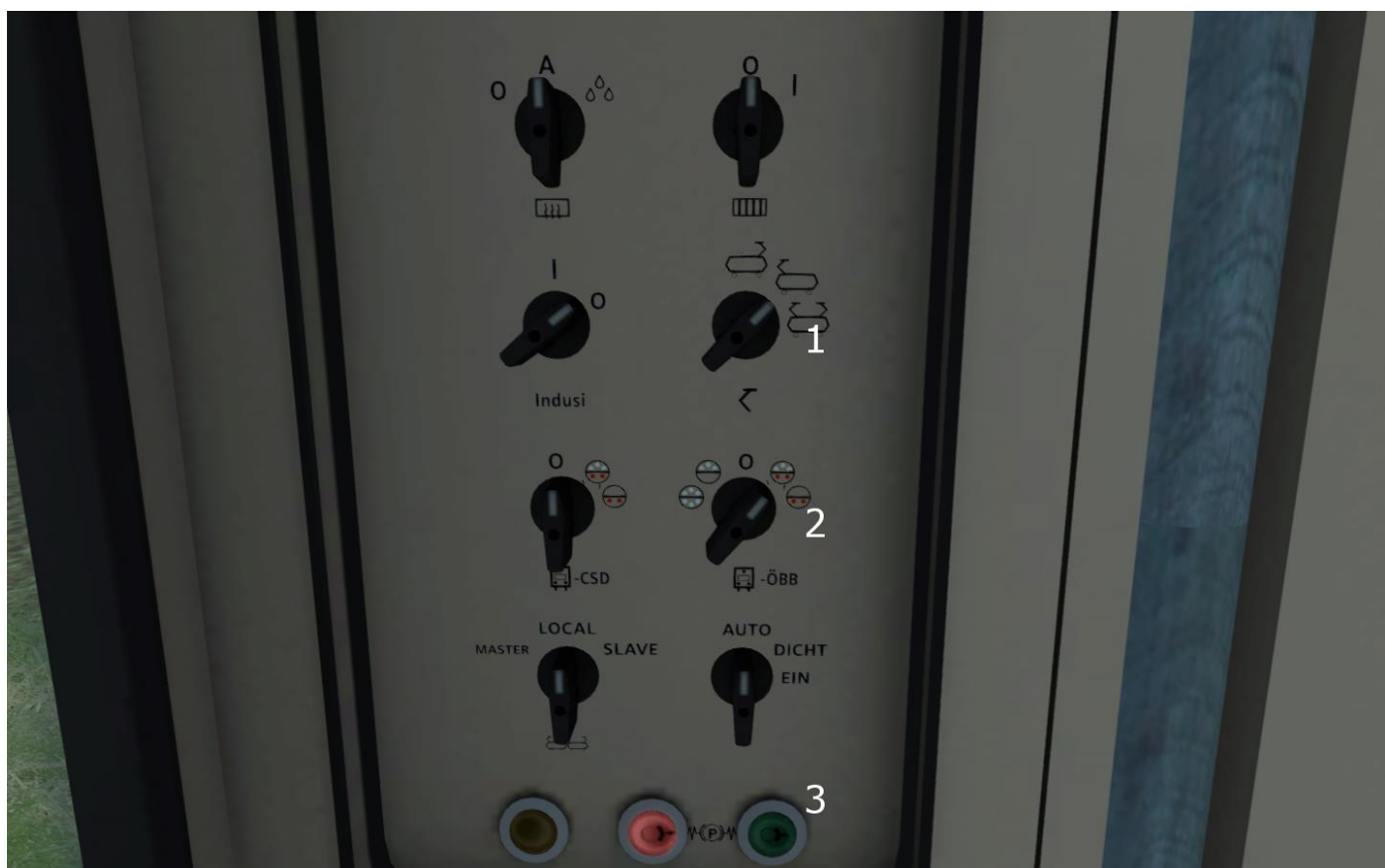
1 – Break test
2 – Loco break {[/]}
3 – Break cylinder indicator
4 – Main air brake indicator



1 – Key
2 – Activate cab [F / Shift-F]
3 – PZB Befehl [Delete Key]
4 – PZB Free [End Key]
5 – PZB Acknowledge [Page down Key]

Other key assignments relevant for this screen

PZB/Indusi Off/ On [Ctrl-Shift-A]
Train mode [Ctrl-8]



1 – Pantograph selection [Shift-P / Strg-P]
2 – Headlight mode selection [H / Shift-H]
3 – Spring accumulator brake (like a parking brake)

Other key assignments relevant for this screen

Raise/lower pantograph [P / Ctrl-Shift-P]
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Train Operation

Start-up procedure:

- Move your mouse onto the silver plate underneath the “Activate cab” switch and click the left mouse button. This will insert the key.



- Turn the key with your mouse to the right
- Turn the “activate cab” switch with your mouse to the right



- Switch on the battery [**Shift-B**] and wait until the digital display on the right has fully loaded
- Use the left arrow key to turn around
- Choose the relevant pantograph
- Choose the appropriate light mode
- Use the right arrow key to turn back to the front
- Raise the pantograph and wait until the voltmeter indicates a current
- Move the main switch to the “On” position (forward)
- Switch on the engine fans
- If you wish you can now switch on the instrument lights and/or the cab lights
- Activate the reverser by clicking on one of the directional arrows (up for forward, down for backwards)
- Move the speed limiter target speed to the desired speed [**Y / C**]
- Use the left arrow key to turn around
- Release the Spring accumulator brake (green button)

You are now ready to depart!

Driving procedures:

Ensure that you have completed the start-up procedure!

- If you haven't done so yet, move the speed limiter target speed to the desired speed (small triangle in speed indicator) using the Y and C keys.
- Move the power controller to position "F" [key "A"]
- Now move the power controller to "+" [key "A"] until you have achieved the desired power output (as seen in the power indicator)
- Once you have achieved the required power output move the power controller back into the "F" position [key "D"]
- The loco will now hold this power output and you can change the speed by moving the speed limiter target speed
- To reduce the speed move the power controller to position "0" [key "D"] until the available power output is 0 kN
- Now move the power controller to position "EB" [key "D"]
- Just as you did before you can now choose the amount of electro dynamic breaking by moving the power controller into the "+" position [key "D"]. If you move the controller back into the "EB" position it will hold the selected amount of breaking power.
- To brake with the train brake move the train brake lever to position "BR" [key "#"]. Leave the lever in that position until you have the desired amount of braking power. If you let go of the lever it will revert into the neutral position and hold the selected breaking power
- To reduce the amount of breaking power or to stop breaking move the lever to the "LO" position (key ";"). Leave the lever there until the desired breaking power is achieved.

Whilst you are driving you can slow down and accelerate using the speed limiter target speed indicator. The locomotive will automatically speed up or slow down.

Please note that the loco will only have the amount of power available that you set by using the power controller. If you set off on a flat area choosing 100 kN and then later drive up a mountain pass, the loco might not have enough power to achieve the target speed. In such a case you need to add more power.

Important! The speed limiter is an aid to help you hold a certain speed. It does not designed to completely take over the train. As the train driver it is your responsibility to ensure a safe speed at all times. Especially when driving on steep mountain passes you cannot solely rely on the speed limiter. As a general rule, manual driving is always better and more precise.

Stopping the train should never be done by using the speed limiter!



PZB / Indusi

PZB stands for “Punktfoermige Zugbeeinflussung” and is a system designed to monitor the train driver's action. The actual system is very complex. This is only a brief summary that will help you to use it correctly and avoid emergency brakes.

How does it work?

All locos and driving trailers are equipped with a sensor on the bogies. These exchange information with magnets that are placed at specific points along the line. The magnets in turn are linked to the signalling system.

Whenever a signal changes to “stop” or “pass at 60 km/h” the magnet transmits this information via the sensors into the on-board PZB system. The relevant information is displayed to the driver. If the driver ignores the information or fails to follow the required procedures the system initiates an emergency stop.

Changing train modes:

Before you set off you will have to tell the system what kind of train you are in. On the 1014 there are two different modes linked to two different maximum speeds.

Train type O: This is the standard setting for all high speed and fast passenger services

Train type M: Trains that are limited to 125 km/h

You can select the train type by pressing Shift+8.

Driving with PZB/Indusi:

When you approach a warning signal and it shows two green lights you do not have to do anything.

If the warning signal shows yellow lights or green and yellow lights, it means that the next main signal either shows “stop” (red) or “proceed at limited speed”. In both cases you must tell the system that you have seen the warning signal. Once you pass it you have 4 seconds to press “acknowledge” (**Page Down key**). Failure to do so will result in an emergency brake.

After that you must slow the train down. There are several rules regarding the slowing down process which differ for each train type. Fast passenger trains must be slowed down to 85 km/h within 23 seconds. If you don't slow down fast enough, the system will engage the emergency brakes.

Note: Should you slow down and then pass a combined main – warning signal where the warning signal shows anything else but two greens you will have to acknowledge the warning signal again.

If you get an emergency brake you will have to wait until the train has come to a complete stop. Move the power controller into the “0” position, press “Free” (**End key**) and wait until the brakes have been released. Once the brakes are fully released you can continue driving.

Included rolling stock and scenarios

ÖBB 1014 New logo



ÖBB 1014 Old logo



ÖBB SGNS Container wagon (15 versions)



Scenarios:

All scenarios are taking place on the DTG Semmering route available on the steam store.

(http://store.steampowered.com/app/325990/Train_Simulator_Semmeringbahn_Mrzzuschlag_to_Gloggnitz_Route_AddOn/)

[1014] A cold winters day

Time: 45min

Difficulty: Medium

[1014] Freight train from Gloggnitz to Mürzzuschlag

Time: 45min

Difficulty: Easy

[1014] Regional Service Semmering - Payerbach

Time: 40min

Difficulty: Hard