Railworks Austria – Skyhook Games

ÖBB 1142 Manual

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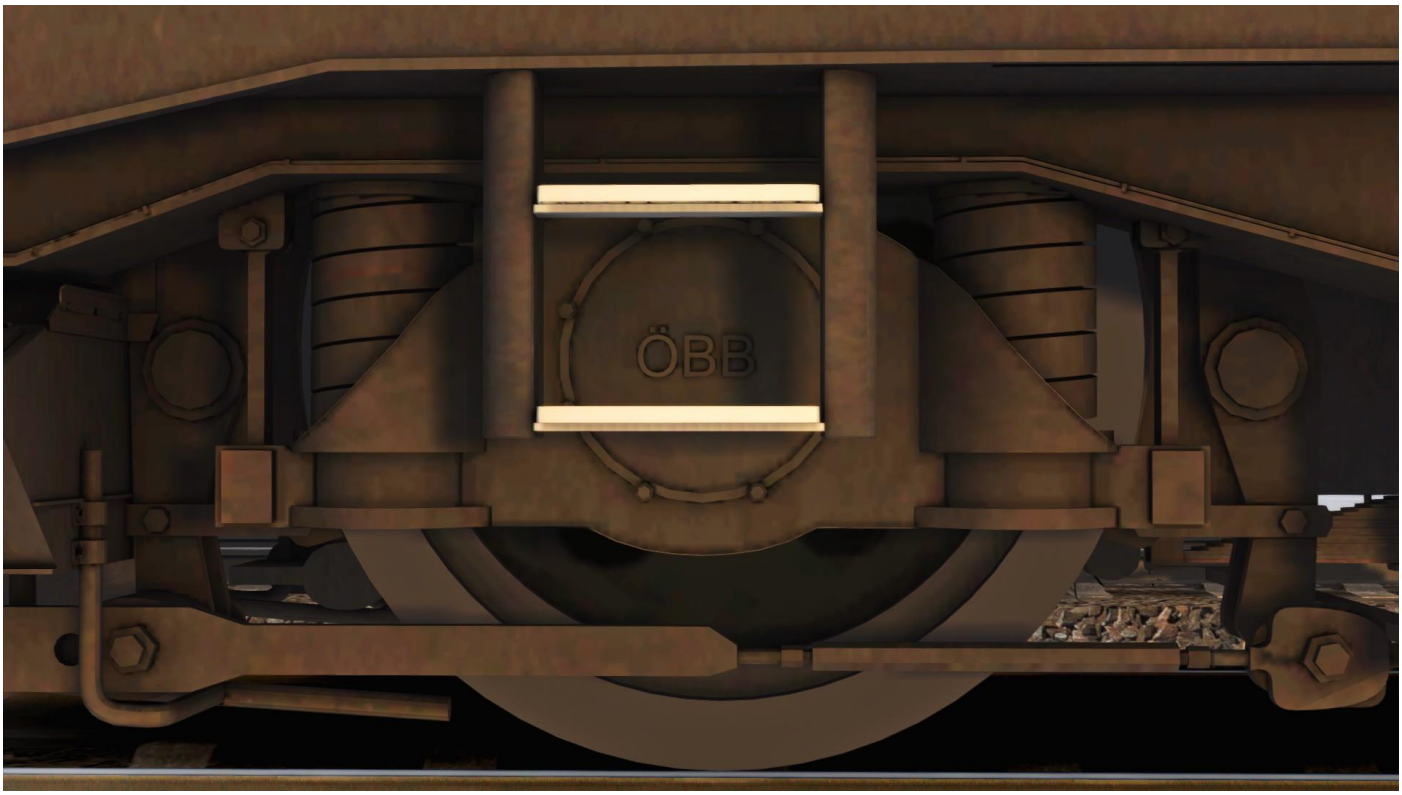
Introduction



Because of the great success of the ageing 1042 series, in 1995 the ÖBB decided to upgrade the locos to the 1142 series.

The 1142 is certified as a push-pull locomotive, the third tail light was removed and most locos were repainted into a new livery.

Today, these locos are mostly used as additional powertrains either in front of, or at the back of heavy freight trains travelling accross the Semmering pass. You can also see them pulling regional trains in the east of Austria.

The 1142 has an operating mass of 83.5t, a maximum speed of 150 kph and a maximum power output of 3800 kW.

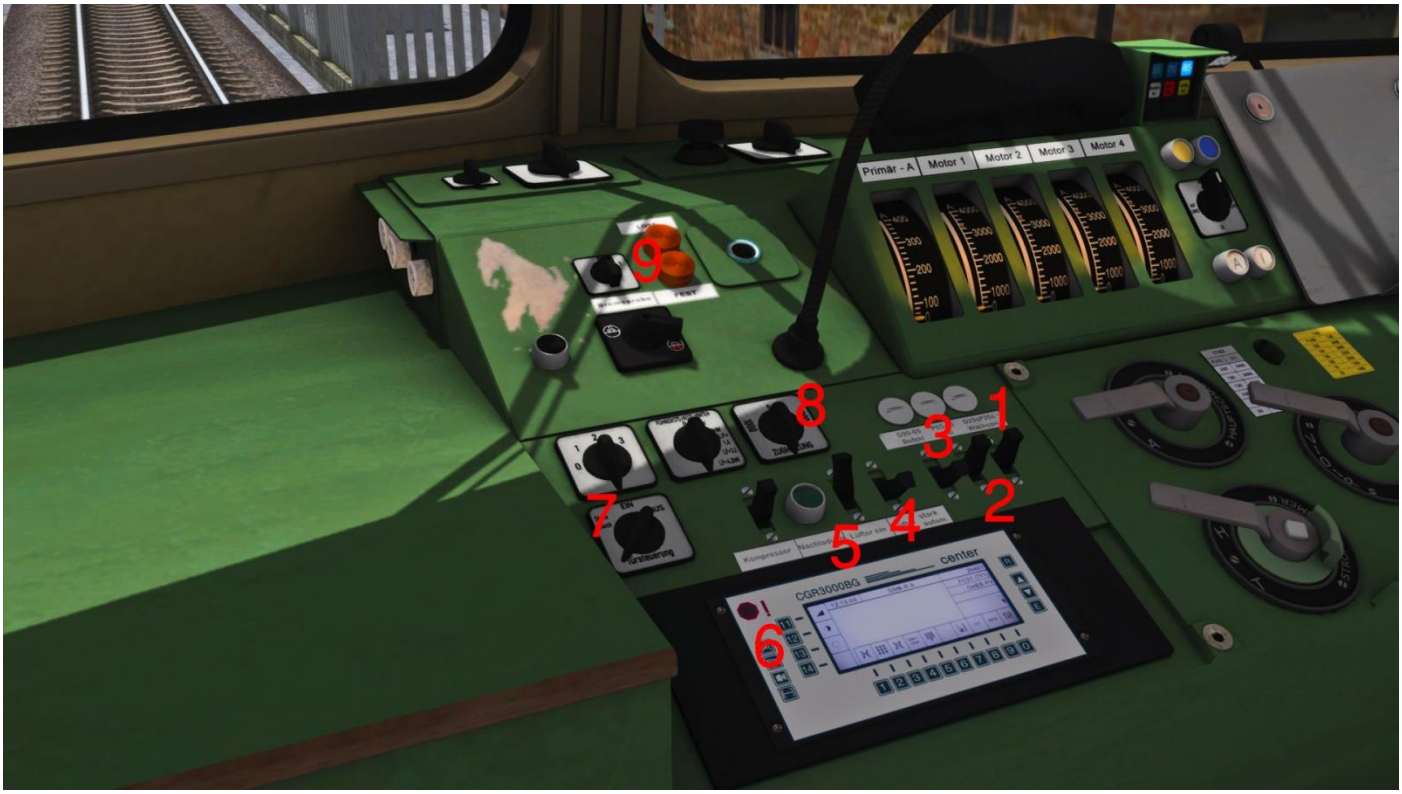
This product was designed in collaboration with the Austrian Federal Railways (ÖBB) and created by Railworks Austria and Skyhook Games.

1142 Cab and Key Bindings

1 – Train Brake **[# / ;]**	12 – Door Lights
2 – Speed Indicator	13 – PZB Indicators
3 – Locomotive Brake **{ [/] }**	14 – Reverser **[W / S]**
4 – Sander **[X]**	15 – Pantograph switch **[P]**
5 – Cab Lights **[L]**	16 – Main Power switch **[Z / Ctrl-Z]**
6 – Light Switch **[H / Shift-H]**	17 – Power Indicator
7 – Horn **[High – N / Low – B]**	
8 – Brake Pressure Indicators	
9 – Electrical Brake Indicators	
10 – Power Lever **[A / D]**	
11 – Door control Lever **[Doors close – R]**	

Other Key Assignments Relevant For This Screen

Wipers **[V / Shift+V]**
Sifa Off / On **[Shift-7]**
Sifa Pedal **[Space Key]**
PZB/Indusi Off / On **[Shift-8]**
Battery main switch **[Shift-B / Strg-B]**
Selecting Pantographs **[Shift+P / Ctrl+P]**
Change Braking Modes **[Ctrl+# / Ctrl+Shift+#]**
Automatic Start-Up **[Ctrl+Shift+Z]**
Wipers **[V / Shift+V]**
Select Pantograph **[Shift+P]**
Parking brake **[/]**



1 – PZB Acknowledge **[Numpad Page Down]**
2 – PZB Free **[Numpad End]**
3 – PZB Command **[Numpad Delete]**
4 – Fan strong **[K]**
5 – Fan On / Off **[Shift-K]**
6 – Radio switch white/dark
7 – Door Control System On / Off **[Ctrl-Shift-T / R to lock doors]**
8 – Train heating **[O]**
9 – Brake test

Other Key Assignments Relevant For This Screen

PZB Train Mode **[Ctrl+8 / Ctrl+Shift+8]**
PZB on/off **[Shift+8]**
Sifa Pedal **[Space key]**

Start-Up Procedure:

- Turn on the battery **[Shift-B]**
- If required you may select the pantograph **[Shift-P]**
- Raise the Pantograph **[P]**
- Wait a few seconds, then move the main switch to ON **[Z]**
- Activate the reverser and choose the direction of travel **[W / S]**
- If you want to you can now activate the cab and instrument lights **[I / L]**
- Switch on the headlights **[H]**
- Release the hand brake **[/].** You can check if the parking brake is released by looking at the right hand panel in the cab. Make sure the yellow light „Festhaltebremse“ is out.

You are now ready to depart!

Automatic Start-Up Procedure:

Should you want to by-pass the start-up process, you can do so by using the automatic start-up procedure.

Once the loco has loaded in Train Simulator, go into the cab (press 1) and press **Ctrl+Shift+Z** all at the same time. You will see a message confirming that the automatic start-up procedure has begun.

Once completed, you will see another message telling you so.

You can now switch on the headlights **[H]** and – if required – the cab and instrument lights **[L and/or I].**

Finally, release the hand brake by pressing the **/** key. You can check if the brake is released by looking at the right hand panel in the cab. Make sure the yellow light „Festhaltebremse“ is out.

You are now ready to depart!

Driving:

Please ensure that you have completed the start-up procedure!

This loco is equiped with a sequential logic system. That means, by using the regulator wheel you pre-select a power notch which is then translated into a sequential power output.

To move the wheel you can either use **[A / D]** for slow movement or **[E / Shift+E]** for fast movement.

Please note that the engine cannot handle power outputs of **3500A** for more than **2 minutes** and **2700A** for more than **20min**! If you exceed these values, the engine will switch off. In such a case, turn the regulator wheel to the neutral position and wait until the power output is at zero. Then switch on the main switch **[Z]** and add power again.

To use the electrodynamic brake, turn the wheel to zero and then further left.

Changing Braking Modes:

Before you drive off you can set different braking modes. You achieve this by pressing Ctr+Shift+@ or Ctrl+@

Braking modes will influence how fast the air pressure will change in the brake cylinder. In other words, how fast the brakes will “bite”.

There are three brake modes available:

Brake Mode R: Fast application (used for fast passenger trains)

Brake mode P: Normal application (used for shorter passenger trains or freight trains)

Brake mode G: Slow application (used for heavy freight trains, especially when carrying dangerous or delicate goods)

By default the loco will always have brake mode R enabled!

PZB90

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 on the main screen in the cab. 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. In simple terms there are two different modes linked to two different maximum speeds.

You can select the train type by pressing **Ctrl+8** and **Ctrl+Shift+8**. This will move the selection up and down.

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

Traintype M: This type is needed for medium freight trains

Traintype U: Trains that are limited to 105 kph

When you select train mode O. The blue 85 light on the PZB display will light up. If you select train mode U the blue 55 light will light up.

Restrictive mode

When you first boot up the system you may notice that the blue squares indicating the selected train type are flashing. Whenever this is the case it means that the system has gone into restrictive mode. As long as this mode is active the train is limited to 40 kph. If you exceed this speed the system will initiate an emergency brake.

You can free yourself from this system by pressing the “free” button **[Numpad End].**

Please note that sometimes the system won’t allow you to free yourself. You will have to drive at 40 kph until the restrictive mode is lifted. This mode was introduced after a major train crash in Germany. It restricts the train to a low speed in certain situations.

Driving with PZB90

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” **[Numpad Page Down].** 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. Passenger trains must be slowed down to 85 kph 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 reverser into the neutral position and press “Free” switch **[Numpad End]** and wait until the brakes have been released.

You will be in restricted mode and won’t be allowed to free yourself from it. Proceed at 40 kph until the system is happy for you to drive any faster (The blue squares on the display will stop flashing).

Included Rolling Stock And Scenarios

ÖBB 1142 small headlights

ÖBB 1142 large headlights

ÖBB Zacns (6 Versions)

Scenarios:

To activate the 1142 package in order to create your own scenarios, open the object set filter in the scenario editor, choose “SHG“ from the drop-down menu and add the “OBB1142 Pack01“ to your scenario.

All scenarios take place on the Semmering route which is not included in this package. The route is available on the steam store:

http://store.steampowered.com/app/325990/Train_Simulator_Semmeringbahn__Mrzzuschlag_to_Gloggnitz_Route_AddOn/

[1142] Regional train on Semmering

Time: 55min

Difficulty: Easy

[1142] Freight train Gloggnitz - Mürzzuschlag

Time: 60min

Difficulty: Medium

[1142] A wintry ride

Time: 50min

Difficulty: Medium