

Railworks Austria – Skyhook Games

ÖBB 4744 Manual



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Introduction



The ÖBB 4744 series (Cityjet) is an electrical multiple unit which is being produced by Siemens since December 2015.

The Cityjet is replacing the ageing CityShuttle carriages and with the exception of Vorarlberg and Tyrol, can be found all over Austria.

The 4744 series has an operating weight of 145t, a top speed of 160 kph and a maximum power output of 2600kW.

This product was produced by Railworks Austria and Skyhook Games in cooperation with the Austrian Federal Railways.

Cityjet Cab and Key Bindings



1 – PZB Command [Numpad Delete]
2 – PZB Free [Numpad End]
3 – PZB Acknowledge [Numpad Page Down]
4 – Reverser [W / S]
5 – Main Switch [Z / Ctrl-Z]
6 – Pantograph [P]
7 – Door Control Lever [Close Doors – R]
8 – Activate Cab
9 – Passenger Information System
10 – Sander [X]



1 – Power Switch [A / D]
2 – Headlights / High beam lights [H]
3 – Parking Brake Set
4 – Parking Brake Release
5 – Reduce Cruising Speed [C]
6 – Increase Cruising Speed [Y]
7 – Activate Cruise Control [Shift-A]
8 – Instrument Lights [I/Shift-I]
9 – Roadrunner – Train Length Indicator [E - press twice]

Other Key Assignments Relevant For This Screen

PZB/Indusi On / OFF [Shift-8]
PZB Train Type [Ctrl-8/ Ctrl+Shift+8]



1 – Light Selection Switch [Ctrl-H/Shift-H]
2 – Train Brake [,/;]
3 – Mhorn [Low – N / High – B]
4 – Cab Lights [L]
5 – Wipers [V / Shift-V]

Train Operation

Start-Up Procedure:

- Turn the key



- Select the direction of driving with the reverser [W / S]
- If you wish you can switch on the instrument lights and the cab lights [I / L]

You are now ready to depart!

Operation:

Make sure that you have completed the start-up procedure!

This train is driven with the combined power switch. To increase power move it forward [A], to slow down move it backwards [D]. When you stop the train, it will automatically engage the parking brake.

Cruise Control:

The Cityjet has a function called „Hold Speed“. Once you have achieved the speed you want to drive at, simply move the power selector to the zero position. The train will hold the current speed. To drive faster or slower move the power selector for or aft.



Passenger Information System:

This 4744 series includes the passenger information system. This system allows you to play pre-recorded announcements and change the destination boards. By default, only destination boards without announcements can be selected. A package containing station announcements can be downloaded at www.railworks-austria.at. By typing in the relevant numbers you can change the destination boards.



Number	Destination
1	S 1 Wien Meidling
2	S 1 Wien Floridsdorf
3	S 1 Gänserndorf
4	S 2 Wien Meidling
5	S 2 Wien Floridsdorf
6	S 2 Wien Liesing
7	S 2 Mödling
8	S 2 Wolkersdorf
9	S 2 Mistelbach
10	S 2 Laa/Thaya
11	S 3 Wr. Neustadt Hbf
12	S 3 Leobersdorf
13	S 3 Wien Liesing
14	S 3 Wien Meidling
15	S 3 Wien Floridsdorf
16	S 3 Korneuburg
17	S 3 Stockerau
18	S 3 Hollabrunn
19	S 4 Wr. Neustadt Hbf
20	S 4 Leobersdorf
21	S 4 Wien Meidling
22	S 4 Wien Floridsdorf
23	S 4 Stockerau
24	S 4 Absdorf-Hippersdorf
25	S 7 Wolfsthal
26	S7 Flughafen Wien (VIE)
27	S 7 Wien Floridsdorf
28	S 7 Wolkersdorf
29	S 7 Mistelbach
30	S 7 Laa/Thaya
31	S50 Neulengbach
32	S50 Tullnerbach
33	S50 Unter Purkersdorf
34	S50 Wien Westbahnhof
35	S50 St. Pölten Hbf
36	S80 Wien Aspern Nord
37	S80 Unter Purkersdorf
38	S80 Wien Hütteldorf
39	S80 Wien Hbf
40	S80 Wien Meidling
41	S 1 Graz Hbf
42	S 1 Bruck a.d.Mur
43	S 5 Graz Hbf
44	S 5 Spielfeld-Straß
45	S 8 Unzmarkt
46	S 8 Leoben
47	S 8 Bruck a.d.Mur
48	S 9 Bruck a.d.Mur
49	S 9 Kapfenberg
50	S 9 Mürzzuschlag
51	REX Mürzzuschlag
52	REX Bruck a.d.Mur
53	REX Graz Hbf
54	REX Spielfeld-Straß
55	REX Wien Hbf

56	REX Salzburg Hbf
57	REX Wörgl Hbf
58	REX Saalfelden
59	REX Wien Westbahnhof
60	REX Wien FJB
61	REX Sigmundsherberg
62	REX Gmünd
63	REX Ceske Velenice
64	REX Wr. Neustadt
65	REX St. Pölten Hbf
66	REX Amstetten
67	REX St. Valentin
68	REX Deutschkreuz
69	REX Wulkaprodersdorf
70	REX Pamhagen
71	R Müzzzuschlag
72	R Semmering
73	R Payerbach-Reichenau
74	R Laa/Thaya
75	R Straßwalchen
76	R Wien Floridsdorf
77	R Wien Meidling
78	R Wien Hbf
79	R Wien Westbahnhof
80	R Retz
81	R Wolfsthal
82	R Wr. Neustadt Hbf
83	R St. Pölten Hbf
84	R Pöchlarn
85	R Amstetten
86	R St. Valentin
87	R Waidhofen/Ybbs
88	R Kleinreifling
89	R Flughafen Wien (VIE)
90	REX Unzmarkt
91	REX Leoben
92	R Selzthal
93	REX Selzthal
94	R Schladming
95	REX Schladming
96	R Bischofshofen
97	REX Stainach-Irdning
98	R Stainach-Irdning
99	R St. Michael
100	REX St. Michael
101	R Bernhardsthal
994	Bitte nicht einsteigen
995	Regionalexpress
996	Regionalzug
997	S-Bahn
998	PROBEFAHRT
999	SONDERFAHRT

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-Mode:

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.

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

Train type U: Trains that are limited to 105 km/h

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

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 km/h. 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 km/h 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 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 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 km/h until the system is happy for you to drive any faster (The blue squares on the display will stop flashing).

SIFA

Sifa stands for Sicherheitsfahrschaltung (safety driving switch) and is a system designed to check if the driver is still alert.

There is a pedal underneath the desk on which the driver can rest his feet. Every few seconds he must press the pedal down. If he fails to do so an aural warning will start to sound. If the pedal is still not pressed the train will engage an emergency brake.

To press the pedal, use the space key.

In case of an emergency brake, the pedal needs to be pressed. After pressing the pedal, the power switch must be set to “B” (brake position) to release the brakes. When the brakes are fully released you can continue driving.

You can activate and de-activate this system by pressing Shift+7. By default the SIFA is always active.

Included Rolling Stock and Scenarios

ÖBB 4744 (Four doors per side)



Scenarios:

All Scenarios require the DTG Semmeringbahn, available on the steam store:

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

[Cityjet] Replacement train

Time: 60min

Difficulty: Medium

[Cityjet] Round trip

Time: 25min

Difficulty: Medium

[Cityjet] Regional train on Semmering

Time: 50min

Difficulty: Medium