

Class 91/Mk4 Enhancement Pack



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How to install

- 1) Locate where you have downloaded this pack and unzip it. Information on how to do this can be found [here](#).
- 2) Go to the location where you have extracted the files from the .zip file.
- 3) Now find the .exe file called 'Class 91-Mk4 Enhancement Pack'. Double-click this file.
- 4) Follow the steps and by the end of the process, the main part of this pack will have installed.
- 5) If you intend to use any of the included scenarios, make sure you have the requirements installed, as listed on the product page.

Liveries

GNER - *GNER AP*



Ex-GNER (National Express East Coast) - *Ex-GNER (NXEC) AP*



National Express East Coast - NXEC AP



Ex-GNER (East Coast) - Ex-GNER (EC) AP



Ex-National Express East Coast (East Coast) - Ex-NXEC (EC) AP



East Coast - East Coast AP



Keyboard controls

Non-standard keyboard controls are listed below:

Ctrl+1 -	Activate no.1 cab (<i>class 91 only</i>)
Ctrl+2 -	Activate no.2 cab (<i>class 91 only</i>)
L -	Cab light ON/OFF (<i>class 91 only</i>)
Ctrl+L -	Cab light OFF (<i>DVT only</i>)
Shift+L -	Cab light ON (<i>DVT only</i>)
E -	Deadman's pedal (DVD reset)
Y -	Driver Reminder Appliance (DRA) ON/OFF
Ctrl+D -	Driver vigilance device (DVD) ON/OFF
C -	Driver to guard signal
M -	Exterior lights switch CLOCKWISE (<i>class 91 no.1 cab only</i>)
Shift+M -	Exterior lights switch ANTI-CLOCKWISE (<i>class 91 no.1 cab only</i>)
F -	Fire alarm test button
I -	Instrument lights switch INCREASE
Shift+I -	Instrument lights switch DECREASE
J -	Marker lights switch ON/OFF (<i>class 91 no.2 cab & DVT only</i>)
Shift+W -	Master key IN/OUT (<i>class 91 only</i>)
Ctrl+P -	Pantograph DOWN
P -	Pantograph UP
O -	Passenger saloon lights ON/OFF
, -	Speed set control CLOCKWISE
. -	Speed set control ANTI-CLOCKWISE
K -	Tail lights switch ON/OFF (<i>class 91 no.2 cab & DVT only</i>)
V -	Wiper switch INCREASE
Shift+V -	Wiper switch DECREASE

Features

- 6 brand new liveries
- Detailed internal & external audio
- Accurate acceleration physics
- [Dynamic brake simulation](#)
- [Realistic speed set cruise control](#)
- [Neutral section functionality](#)
- [Improved class 91 'blunt-end' simulation](#)
- Semi-functional in-cab voltmeter (class 91 only)
- Working tail lights on Mk4 TSOE coach
- 'Not to be moved' sign changeable via vehicle number

Dynamic brake simulation

When using the train brake at speeds above 4mph, the class 91 will use the dynamic brake to contribute to the braking effort. As a result, the bogie brake cylinder pressure gauge will remain at 0 during braking, above 8mph. Between 8 and 4mph, the air brake is blended in and the bogie brake cylinder pressure gauge will start registering pressure until the full pressure for the selected brake notch is reached, at 4mph.

Speed set cruise control

The driver can select a speed to maintain by using the rotary switch available, in 5mph increments. Selecting a speed of 0mph disables the cruise control. The cruise control will activate only if the power handle is away from off, and the power used will depend on the power handle position. Once the target speed is reached, the power is cut back automatically in order to maintain it. If required, the dynamic brake may activate to maintain the speed.

Please note that for track with a speed limit of 125mph, the simulator will start recording overspeed as the train goes above 125mph, even by 0.1mph. Be aware then that when setting the cruise control to 125mph, the train can, and most likely will, go slightly above that, resulting in the simulator recording speed violations.

Neutral section functionality

The class 91 and Mk4 DVT will react to the neutral sections available on the WCML Over Shap route. On top of this, they will also function with the neutral sections present in the three included scenarios. These have been placed using our own markers and signage which are available in the 'AP/Common' object set filter folder.

Improved class 91 'blunt-end' simulation

The class 91 has scripting so that it can be driven as naturally as possible from both cab ends. To allow this, it is required to tell our scripting which cab end you are currently driving from. When entering a cab that is inactive, there is a large inscription in the cab window, telling the driver to either press 'Ctrl+1' to activate the no.1 cab, or 'Ctrl+2' to activate the no.2 end cab. Doing this allows you to use the reverser as you would in reality, rather than the reverse logic which was present in the default set up.

Setting up the driver's cab

Please follow the steps below to set up the cab of the class 91/Mk4 DVT so you are ready to move:

- 1) Turn the master key in by pressing **Shift+W**. (*class 91 only*)
- 2) Move the reverser to the 'neutral' position by pressing **W**. The TMS alarm will sound, shortly followed by an AWS self-test.
- 3) Cancel the AWS self-test alarm by pressing **Q**.
- 4) Turn off the tail lights and turn on the headlights. The keys used to do this vary depending on which cab you're in.
- 5) Check the door interlock light is lit.
- 6) Turn the Driver Reminder Appliance (DRA) off by pressing **Y**.

How to use in the scenario editor

Numbering

When placing a class 91 or Mk4 DVT in the scenario editor, you are able to control whether it shows a 'not to be moved' sign, via the vehicle number.

Example number

91129;NoMV=L

Key:

91129 - Vehicle number

;NoMV=L -

A 'not to be moved' sign will be applied on the left-hand side of the vehicle, as you look at it front-on. To place on the right-hand side, simply change 'L', to 'R'.



Scenarios

APC91EP: 1D39 15:35 London King's Cross - Leeds

Route = ECML London - Peterborough
Track covered = London King's Cross - Peterborough
Traction = GNER 91121
Year = 2007
Duration = 50 minutes



APC91EP: 1E11 11:00 Edinburgh - London King's Cross

Route = ECML London - Peterborough
Track covered = Peterborough - London King's Cross
Traction = GNER 91126
Year = 2007
Duration = 1 hour 20 minutes



APC91EP: 1Y05 05:25 Newcastle - London King's Cross

Route = ECML London - Peterborough
Track covered = Peterborough - London King's Cross
Traction = East Coast Mk4 DVT 82216
Year = 2013
Duration = 55 minutes



Credits

Nicolas Schichan - Advanced scripting

Bounds Green Depot - Assistance in recording sounds