

Class 66 Enhancement Pack

AP

Contents

How to install	2
Liveries	3
Keyboard controls	10
New features.....	11
EM2000 screen	12
Main Menu.....	12
Meter Menu (Page 1).....	12
Meter Menu (Page 2).....	12
Power data	13
Cooling System.....	13
Unit Information	13
Running Totals Menu	14
Display Totals Data Menu	14
Lifetime totals	14
Maintenance Menu.....	15
Temperature simulation	15
Dynamic exhaust effects.....	15
Functioning reverser handle	15
Numbering	16
Scenarios.....	16
Credits.....	17

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 66 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 freely available extra stock pack and requirements installed, as listed on the product page.
- 6) To ensure the cab environment sounds as intended in this pack, please make sure that 'EFX' is ticked within your in-game Audio settings.

Liveries

EWS - EWS AP



EWS (DB) - EWS (DB) AP



DB Schenker / DB Cargo - DBS / DBC AP



Freightliner (3 headlight variants) - FL (L1/L2/L3) AP



Freightliner PowerHaul (2 headlight variants) - *FLPH (L1/L2) AP*



GB Railfreight Old (2 headlight variants & with/without First logos) -
GBRf Old (L1/L2) AP / GBRf Old (First) (L1/L2) AP



Metronet - Metronet AP



First GB Railfreight (2 headlight variants & with/without First logos) -
First GBRf (L2/L3) AP / First GBRf (NL) (L2/L3) AP



GB Railfreight (3 headlight variants) - *GBRf (L1/L2/L3) AP*



Direct Rail Services (2 headlight variants) - *DRS (L2/L3) AP*



Direct Rail Services Revised - *DRS Rev AP*



Ex-Direct Rail Services - *Ex-DRS AP*



Colas Rail / Colas Railfreight - *Colas AP / Colas RF AP*



Fastline Freight - *Fastline AP*



Keyboard controls

Non-standard keyboard controls are listed below:

Ctrl+A -	AWS ON/OFF
Shift+C -	Clag Factor INCREASE
Ctrl+C -	Clag Factor DECREASE
E -	Deadman's pedal (DVD reset)
Ctrl+D -	Driver vigilance device (DVD) ON/OFF
Ctrl+Numpad 2 -	EM2000 screen DOWN
Ctrl+Numpad 4 -	EM2000 screen LEFT
Ctrl+Numpad 6 -	EM2000 screen RIGHT
Ctrl+Numpad 8 -	EM2000 screen UP
Ctrl+Numpad Enter -	EM2000 screen SELECT/ON
Ctrl+Numpad 1 -	EM2000 screen EXIT/OFF
Ctrl+Page Up -	EM2000 screen NEXT PAGE
Ctrl+Page Down -	EM2000 screen PREVIOUS PAGE
Ctrl+H -	Hazards lights ON/OFF
Shift+W -	Reverser handle IN/OUT
K -	Tail lights ON/OFF
Shift+Numpad Enter -	Visual aids ON/OFF

New features

- 14 liveries
- Improved and authentic traction physics
- [EM2000 screen](#)
- [Temperature simulation](#)
- [Dynamic exhaust effects](#)
- [Functioning reverser handle](#)
- Driver vigilance device (DVD)
- AWS with accurate delay between passing over the magnet and hearing the warning sound
- Functioning passenger and goods brake timings
- Realistic brake air flow indicator behaviour
- AWS/DVD visual aids (optional)
- Correct locomotive number and cab end number displayed within the cab
- Full headlight/tail light control
- Hazard lights
- AI headlights automatically change from day to night setting depending on time of day
- Flickering cab light when starting engine
- Detailed headlight/marker light/tail light textures

EM2000 screen

The EM2000 screen above the driver's window provides information on many aspects of the locomotive. Please see below for the screens it displays which can be navigated by using the keyboards controls listed on page 3 of this manual:

Main Menu

This is the first screen you see when turning on (Ctrl+Numpad Enter) the EM2000 screen. Only 'Data Meters', 'Unit Information', 'Running Totals' & 'Maintenance' can be accessed:



Meter Menu (Page 1)

This is the screen you see when you select 'Data Meters' on the Main Menu. Only 'Power data' & 'Cooling System' can be accessed:



Meter Menu (Page 2)

This is the second page of the 'Meter Menu'. Neither 'Engine Monitor' nor 'EMD Test' can be accessed:



Running Totals Menu

This is the screen you see when you select 'Running Totals' on the Main Menu. Only 'Show running totals on display' can be accessed:

```

- Running Totals Menu -
▶ Show running totals on display ◀
  Transfer data to RS232 port
  Start/Stop trip monitor
! ! ! ! ! SELECT ! EXIT

```

Display Totals Data Menu

This is the screen you see when you select 'Show running totals on display' on the 'Running Totals Menu'. Only 'Lifetime totals' can be accessed:

```

Display Totals Data Menu - Page 1:2
▶ Lifetime totals ◀
  Lifetime governor data
  Lifetime throttle data
  Monthly mileage
! ! ! ! ! SELECT ! EXIT

```

Lifetime totals

This is the screen you see when you select 'Lifetime totals' on the 'Display Totals Data Menu'. It displays the locomotive number (with relevant Freight Operating Company), the date when the locomotive was commissioned (estimated by subclass or can be inputted manually via the locomotive number) and four figures which are estimated by using the commissioning date and current date:

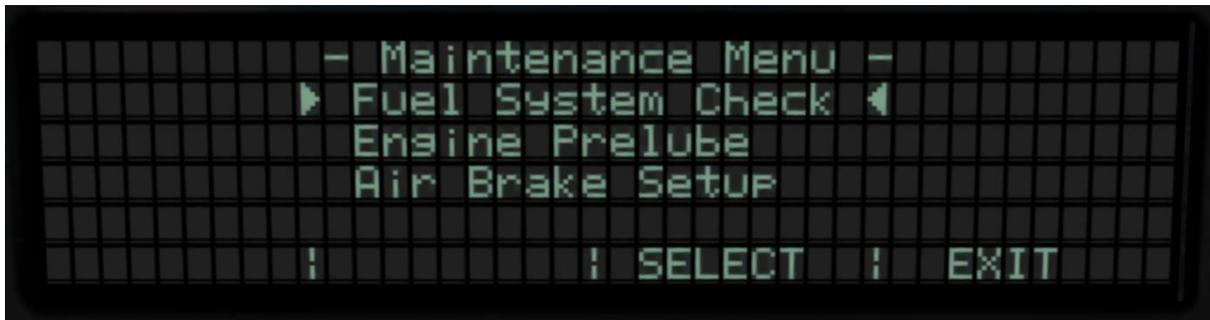
```

Unit:GBR 66723      Data since 30 Sep 06
Engine on time:      39722   hours
Distance traveled:   476660  miles
Traction hp:         12710932 hp*hrs
Traction power:      9533198  kwatt*hrs
! ! ! ! ! SELECT ! EXIT

```

Maintenance Menu

This is the screen you see when you select 'Maintenance' on the Main Menu. None of these options can be accessed.:



Temperature simulation

Depending on engine rpm, engine temperature is calculated accordingly. If engine temperature reaches 167°F, the cooling fans will activate. When engine temperature falls below 131°F, the cooling fans will deactivate. Finally, when engine temperature is 117°F or above, the engine will rev at 343rpm (notch 2) when idling to ensure the engine doesn't cool too quickly when hot. Engine temperature can be observed via the 'Cooling System' screen on the EM2000.

Dynamic exhaust effects

Dynamic exhaust effects mean that the exhaust reacts to what the engine is doing. For example, when in notch 8, the engine will produce more exhaust than it would when idling. On top of that, when starting up, exhaust reacts in sync with the engine revving up. Finally, in reality, the smokiness of each locomotive varies depending on how well maintained it is, so to represent this in the simulator, a random 'clag' factor is allocated to each loco which ranges from 1 to 10; 1 being the cleanest and 10 being the dirtiest. This can also be controlled on the player locomotive by using **Shift+C** & **Ctrl+C**.

Functioning reverser handle

When setting up the locomotive, you must insert the reverser handle before you can move the reverser or the power handle. This can be done by pressing 'Shift+W' and will initiate an AWS self-test which must be cancelled by using the 'Q' key.



Numbering

If you wish, you are able to control the commissioning date of the loco and the date of the scenario that appear on the EM2000 screen, via the locomotive number.

<http://class66.railfan.nl/> is a useful website for finding out the commissioning date of locomotives built pre-2009. Please note that this is not essential for the loco to work.

Example number:

66142xN20150707S19990618

Key:

66142 - Locomotive number **20150707** - Scenario date (year/month/day)

19990618 - Locomotive commissioning date (year/month/day)

x - Only include this if you are using one of the liveries that comes with this pack

Scenarios

APC66EP: 4M02 17:20 Felixstowe South - Hams Hall (Part 1)

Route = GEML London - Ipswich

Track covered = Felixstowe South - Ipswich East Suffolk Jn.

Traction = First GB Railfreight 66723

Year = 2013

Duration = 30 minutes



APC66EP: 4M02 17:20 Felixstowe South - Hams Hall (Part 2)

Route = GEML London - Ipswich

Track covered = Ipswich East Suffolk Jn. - Shenfield Up Loop

Traction = First GB Railfreight 66723

Year = 2013

Duration = 1 hour



APC66EP: 6T61 16:00 Waltham Cross - Whitemoor (Part 1)

Route = GEML London - Ipswich

Track covered = Stratford - Ingatestone Loop

Traction = GB Railfreight 66772

Year = 2015

Duration = 40 minutes



APC66EP: 6T61 16:00 Waltham Cross - Whitemoor (Part 2)

Route = GEML London - Ipswich

Track covered = Ingatestone Loop - Ipswich

Traction = GB Railfreight 66772

Year = 2015

Duration = 1 hour 20 minutes



APC66EP: 6Z57 12:42 Ipswich Griffin Wharf - Watford (Part 1)

Route = GEML London - Ipswich

Track covered = Ipswich Griffin Wharf - Marks Tey Up Loop

Traction = Ex-EWS (DB) 66137

Year = 2014

Duration = 40 minutes



APC66EP: 6Z57 12:42 Ipswich Griffin Wharf - Watford (Part 2)

Route = GEML London - Ipswich

Track covered = Marks Tey Up Loop - Stratford

Traction = Ex-EWS (DB) 66137

Year = 2014

Duration = 55 minutes



Credits

GB Railfreight - Invaluable access to the locomotive to record sounds; stationary and on the move.

Nicolas Schichan - Advanced scripting & 3D nameplates for 66713, 66723 & 66726.