Class 56 Enhancement Pack

AP

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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 56 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.

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Liveries

BR Blue - *BR Blue AP*

BR Large Logo -BR Large Logo *AP*

BR Railfreight Grey Red Stripe - *BR Railfreight Red AP*

BR Railfreight Grey - *BR Railfreight AP*

BR Trainload Grey (Coal/Construction/Metals) - *BR Trainload AP*

Transrail - *Transrail AP*

Loadhaul - *Loadhaul AP*

EW&S - *EWandS AP*

EWS - *EWS AP*

Fastline Freight - *Fastline AP*

Ex-Fastline Freight - *Ex-Fastline AP*

DCR Grey - *DCR Grey AP*

DCR Green - *DCR Green AP*

UK Rail Leasing - *UKRL AP*

Colas Rail - *Colas AP*

Keyboard controls

Non-standard keyboard controls are listed below:

Shift+C -	Clag Factor INCREASE
Ctrl+C -	Clag Factor DECREASE
E -	Deadman's pedal (DVD reset)
Ctrl+D -	Driver vigilance device (DVD) ON/OFF
I -	Instrument lights ON/OFF

New features

- 15 liveries
- Improved and authentic traction physics
- Prototypical 6-step E70 brake handle
- Warning indication lights
- Wheelslip Protection (WSP)
- Dynamic exhaust effects
- Fully functioning Driver Vigilance Device (DVD)
- AWS self-test
- AWS with accurate delay between passing over the magnet and hearing the warning sound
- 4-step reverser (off/reverse/neutral/forward)
- Detailed headlight/marker light/tail light textures

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Warning indication lights

As per reality, warning indication lights have been added to the cab of this locomotive. Please see below for an explanation of what each one indicates.

1 - **AWS Fault** - When the reverser is in 'Off', this displays red. When the reverser is moved out of 'Off' and the AWS self-test is successfully reset, this displays blue.

2 - **Engine Stop** - When the engine is stopped, this displays red. When the engine is started, this displays blue. When the reverser is in 'Off', this is not illuminated.

3 - Wheelslip - When wheelslip is occurring, this displays red. When wheelslip is not occurring, this displays blue. When the reverser is in 'Off', this is not illuminated.

4 - General Fault - In reality, this would display red when there is an unexplained loss of power. This isn't simulated in Train Simulator though, so will always display blue. Except for when the reverser is in 'Off', it will not be illuminated.

Adhesion

Adhesion between a train's wheels and the rails plays a big part in allowing a train to accelerate or brake. Too little of it and the train will slip or slide. There are a myriad of factors that control the level of adhesion and we have attempted to simulate the most important of these to give a varied and realistic driving experience:

Season

Adhesion is generally good in dry conditions during summer and spring. Slightly decreased adhesion during winter to take account of the increased amount of moisture and possible ice on the rails due to cooler temperatures. Much decreased adhesion during autumn due to leaf mulch.

Weather

Adhesion decreases in wet weather, especially so when rain first starts falling before it has had a chance to clean the railhead. If rain is light, it will take longer for the railhead to be cleaned whereas heavy rain will clean it quicker, resulting in adhesion recovering sooner.

When using the drizzle weather pattern in our Sky & Weather Enhancement Pack, adhesion is particularly poor as the rain hasn't enough force to clean the railhead but still makes it sufficiently wet to worsen adhesion.

Time of Day

Adhesion will decrease somewhat after dusk as the air cools and dew is more likely to form on the railhead. This persists throughout the night until around an hour after sunrise when higher temperatures or the sun dry it out. In our simulation, this factor is reduced during summer to account for warmer temperatures, which on average result in less dew.

Tunnels

When adhesion is poor due to external factors such as weather or season, adhesion will generally improve upon entering a tunnel, which is not as susceptible to these factors. When adhesion is good during dry weather and outside of autumn, adhesion may decrease a little upon entering a tunnel due to their damp nature.

Wheelslip Protection (WSP)

Wheelslip protection aids the driver during times of poor adhesion.

When wheelslip is encountered during acceleration, a two stage process takes place:

1) Power is automatically reduced and the wheelslip indication light turns red in the cab.
2) Once the wheelslip stops, power is reapplied to the selected power handle setting and the wheelslip indication light returns to blue. If wheelslip reoccurs, the process starts again.

As a driver, you must assess which power setting is most suitable for the conditions and balance the occurrence of wheelslip with the maximum possible rate of acceleration.

Dynamic Exhaust Effects

Dynamic exhaust effects mean that the exhaust reacts to what the engine is doing. For example, when on full power, the engine will produce more exhaust than it would when idling. Also, when revving up, exhaust thickens before thinning out when rpm settles. Equally, when revving down, exhaust thins. On top of that, when starting up, exhaust rises in sync with the sound of 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 locomotive 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**.

Numbering

For the BR Trainload Grey livery, the autonumber is used to control which sector decal & depot plaque is displayed.

Example number:

aA56121

Key:

a to **d**- Sector decals: Coal (**a**), Construction (**b**), Metals (**c**), Petroleum (**d**) & Blank (*****)

A to **D** - Depot plaque: Toton (**A**), Cardiff (**B**), Leicester (**C**), Thornaby (**D**) & Blank (*****)

56121 - Locomotive number

Scenarios

APC56EP: 6M46 11:29 Redcar - Hardendale
Route = WCML Over Shap
Track covered = Carlisle - Hardendale Quarry
Traction = EWS 56059
Year = 1999
Duration = 45 minutes

APC56EP: 6S72 17:17 Warrington Arpley - Mossend Yard
Route = WCML Over Shap
Track covered = Preston - Carlisle
Traction = Loadhaul 56074
Year = 2001
Duration = 2 hours 15 minutes

APC56EP: 6K05 13:15 Carlisle Yard - Crewe Basford Hall (Part 1)
Route = WCML Over Shap
Track covered = Carlisle Yard - Shap Summit Up Loop
Traction = Transrail 56056
Year = 2001
Duration = 55 minutes

APC56EP: 6K05 13:15 Carlisle Yard - Crewe Basford Hall (Part 2)
Route = WCML Over Shap
Track covered = Shap Summit Up Loop - Preston
Traction = Transrail 56056
Year = 2001
Duration = 1 hour 10 minutes

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Credits

UK Rail Leasing - For accommodating our request to record a class 56 locomotive on their load bank at Leicester depot

Nicolas Schichan - Advanced scripting