

Class 318

Electric Multiple Unit

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 318 EMU 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 relevant payware add-on packs listed on the product page installed so the scenarios function as intended.
- 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.

Technical Information

Manufacturer	British Rail Engineering Limited (BREL) York
Years built	1985 - 1986
Number built	21 (318250 - 318270)
Traction motors	4 x Brush TM21-41
Maximum speed	90 mph (145 km/h)
Coupling type	Tightlock
Length	19.83m per car
Height	3.77 m
Width	2.82 m
Weight	110.6 t

Liveries

Strathclyde Transport:

with original front numbers - *ST 1*

with revised front numbers - *ST 2*

with ScotRail logo - *ST (SR)*

with ScotRail & SPT logos - *Ex-ST (SR/SPT)*



SPT:

with ScotRail logo - *SPT (SR)*

with First ScotRail - *SPT (FSR)*



SPT Rail:

with logo - *SPT Rail*

without logo - *Ex-SPT Rail*

without logo & with GSM-R - *Ex-SPT Rail (GSMR)*



ScotRail:

with ScotRail & First logos - *SR (FSR)*

with ScotRail & Abellio logos - *SR (Abellio)*

with ScotRail logo - *SR*



Cab Guide

Driver's Side



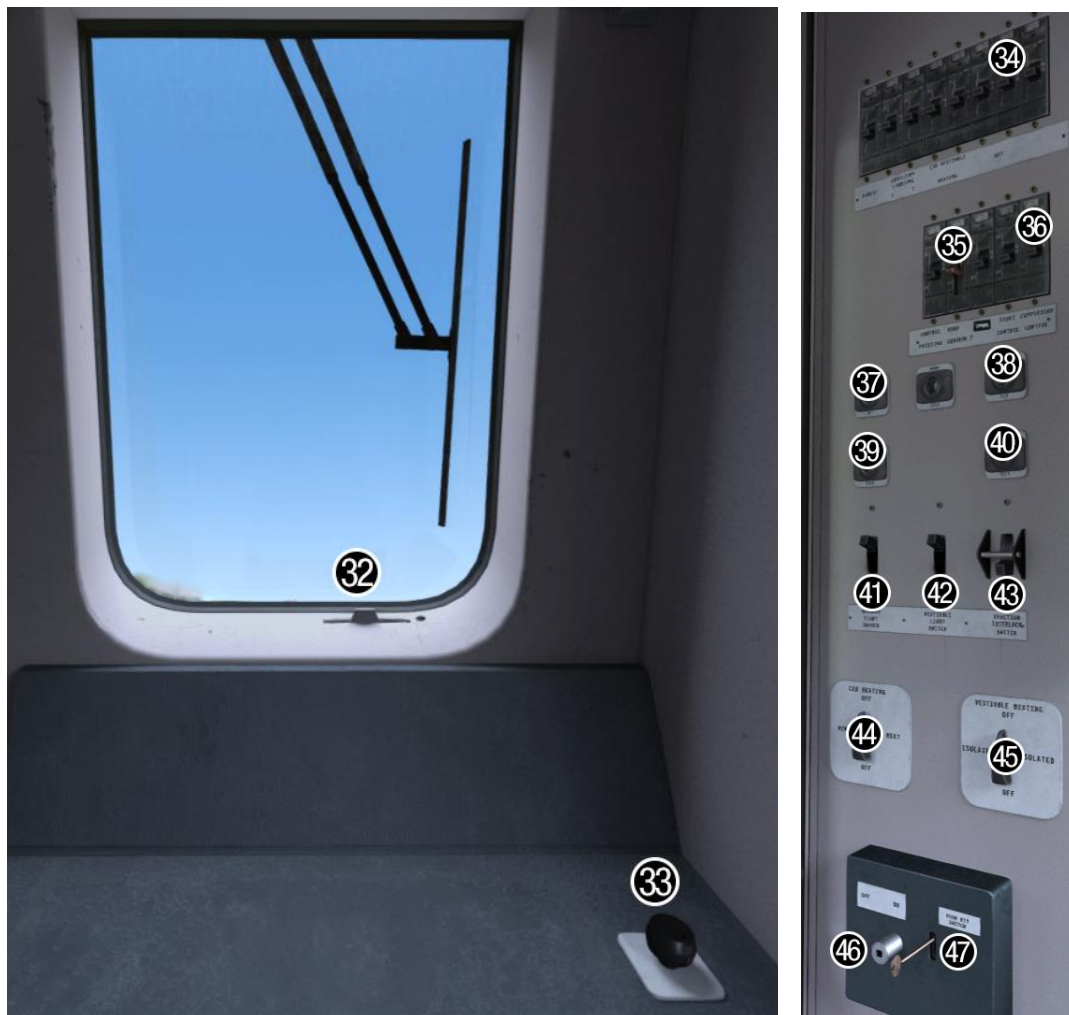
- | | |
|--|---|
| 1 - Brake handle | 17 - AWS reset button |
| 2 - Windscreen wiper switch | 18 - Emergency Bypass Switch (EBS) |
| 3 - Train Protection Warning System (TPWS) | 19 - Main res/brake cylinder pressure gauge |
| 4 - NRN radio | 20 - Speedometer |
| 5 - SMA/CSR radio | 21 - Horn |
| 6 - Driver's Reminder Appliance (DRA) | 22 - Driver to guard bell |
| 7 - Door release buttons (left) | 23 - Line light indicator |
| 8 - Pantograph up/reset button | 24 - Door release buttons (right) |
| 9 - Marker lights switch | 25 - Sander button |
| 10 - Tail lights switch | 26 - Vacuum Circuit Breaker (VCB) indicator |
| 11 - Headlight (left-hand) switch | 27 - Couple button |
| 12 - Headlight (right-hand) switch | 28 - Uncouple button |
| 13 - Demist switch | 29 - Reverser |
| 14 - Panel lights switch | 30 - Power handle |
| 15 - Cab lights switch | 31 - AWS sunflower |
| 16 - Pantograph down button | |

Driver's Side (Refurbished)



- | | |
|---|---|
| 1 - Brake handle | 16 - Speedometer |
| 2 - Windscreen wiper switch | 17 - Driver to guard bell |
| 3 - Train Protection Warning System (TPWS) | 18 - Line light indicator |
| 4 - Driver's Reminder Appliance (DRA) | 19 - Vacuum Circuit Breaker (VCB) indicator |
| 5 - Door release buttons (left) | 20 - Sander button |
| 6 - Door close button | 21 - GSM-R |
| 7 - Headlights switch | 22 - Door release buttons (right) |
| 8 - Tail lights switch | 23 - Pantograph up button |
| 9 - Panel lights switch | 24 - Pantograph down button |
| 10 - Cab light switch | 25 - Uncouple button |
| 11 - AWS reset button | 26 - Couple button |
| 12 - Horn | 27 - Reverser |
| 13 - Door interlock light | 28 - Power handle |
| 14 - Emergency Bypass Switch (EBS) | 29 - Passenger Information System (PIS) |
| 15 - Main res/brake cylinder pressure gauge | 30 - AWS sunflower |

Non-driver's Side & Back Wall



- | | |
|-------------------------------------|--------------------------------------|
| 32 - AWS Isolating Switch (AWS) | 40 - Auxiliaries trip button |
| 33 - Non-driver's side wiper switch | 41 - Gangway lighting switch |
| 34 - Headlamp MCB | 42 - Vestibule lighting switch |
| 35 - Door control MCB | 43 - Traction Interlock Switch (TIS) |
| 36 - Compressor control MCB | 44 - Cab heating switch |
| 37 - Saloon lighting set button | 45 - Vestibule heating switch |
| 38 - Saloon lighting trip button | 46 - Door key switch off/on |
| 39 - Auxiliaries set button | 47 - Door key switch |

Keyboard Controls

Non-standard keyboard controls are listed below:

Z -	Auxiliaries set button
Ctrl+Z -	Auxiliaries trip button
L -	Cab lights switch ON/OFF
F7 -	Destination blind/display UP
F8 -	Destination blind/display DOWN
R -	Door close button
U -	Door release buttons (left)
O -	Door release buttons (right)
C -	Driver to guard bell
Y -	Driver reminder appliance (DRA) ON/OFF
H -	Headlight (right-hand) switch ON/OFF
Shift+H -	Headlight (left-hand) switch ON/OFF
H -	Headlight switch CLOCKWISE (refurb cab)
Shift+H -	Headlight switch ANTI-CLOCKWISE (refurb cab)
Space -	Horn (low tone)
B -	Horn (high tone)
J -	Marker lights switch ON/OFF
Shift+W -	Master key IN/OUT
Shift+P -	Pantograph down button
P -	Pantograph up/reset button
Ctrl+R -	Passenger door operation toggle DOO/GO
Shift+M -	Saloon lighting OFF
M -	Saloon lighting ON
K -	Tail lights switch ON/OFF
Ctrl+T -	Thrash mode ON/OFF
Ctrl+Numpad Enter -	Visual aids ON/OFF
Shift+V -	Driver's windscreen wiper switch LEFT
V -	Driver's windscreen wiper switch RIGHT

Features

Cab Variants

To represent the main changes that have occurred since 1985-1986, 4 cab variants are provided.

Original (without DRA/TPWS)



Original (with DRA/TPWS)



Refurbished (with NRN & SMA/CSR radio)



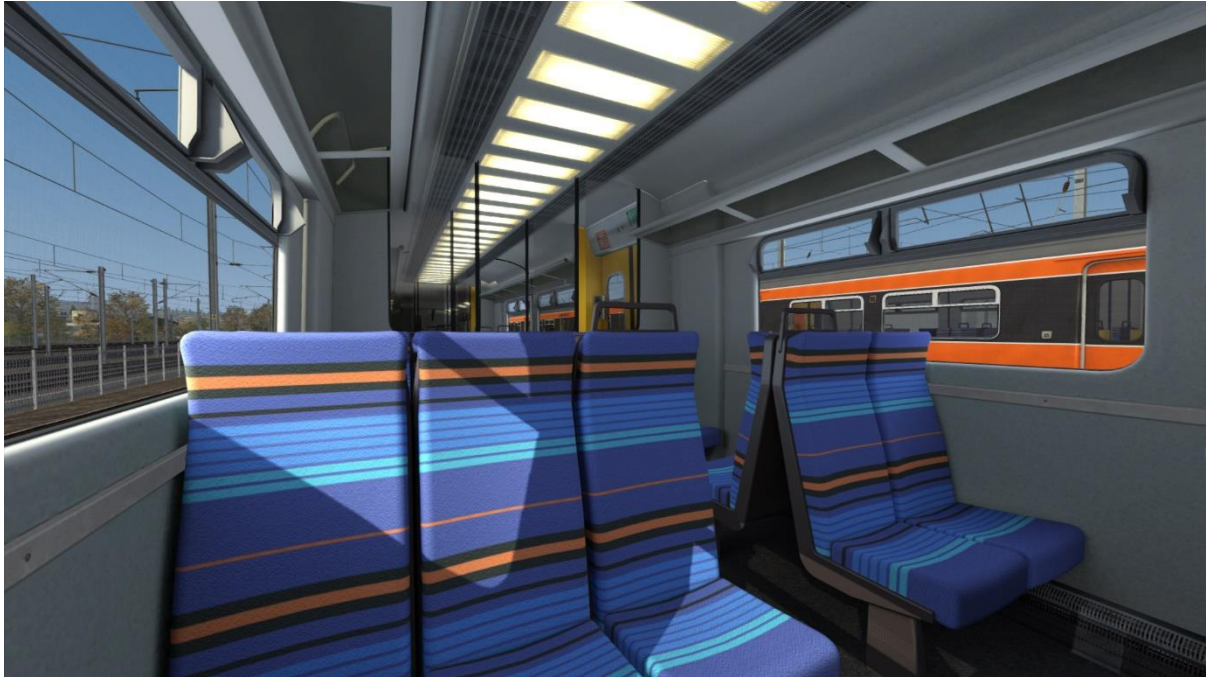
Refurbished (with GSM-R radio)



Passenger View

A passenger view in the MSO is provided in a variety of seat moquettes. On modern liveries, it also features a functioning passenger information system (PIS) which displays destination of the train.

Strathclyde Transport



SPT



SPT (Refurbished)



ScotRail



Player Changeable Destination Blind

The destination blind can be changed during a scenario by pressing either **F7** or **F8**.

When changing the destination blind, it will only apply to the unit you are in. If there is another unit in the formation, you will need to move to that unit to change its blind.

Please see below for a list of the available destinations and their relevant code if you wish to use them via the unit's number on an AI service:

0 - Blank	17 - Dumbarton Central	34 - Largs
1 - Airdrie	18 - East Kilbride	35 - Larkhall
2 - Anderston	19 - Edinburgh	36 - Milngavie
3 - Ardrossan Harbour	20 - Exhibition Centre	37 - Motherwell
4 - Ardrossan Town	21 - Garscadden	38 - Neilston
5 - Argyle Street	22 - Glasgow Central	39 - Newton
6 - Ayr	23 - Glasgow Queen Street	40 - North Berwick
7 - Balloch	24 - Gourock	41 - Paisley
8 - Bathgate	25 - Haymarket	42 - Partick
9 - Bellgrove	26 - Helensburgh Central	43 - Rutherglen
10 - Carstairs	27 - Hyndland	44 - Shettleston
11 - Cathcart Circle	28 - Johnstone	45 - Special
12 - Charing Cross	29 - Kilpatrick	46 - Springburn
13 - Coatbridge Central	30 - Kilwinning	47 - Wemyss Bay
14 - Cumbernauld	31 - Kingsknowe	48 - Whifflet
15 - Dalmuir	32 - Kirknewton	49 - Yoker
16 - Drumgelloch	33 - Lanark	50 - Sorry, Not in Service

Digital Destination Display



When refurbished in the mid-2000s, a digital passenger information system (PIS) was fitted which can be controlled via the computer located to the right of the desk. Instructions for this system can be found below:

- 1) Press the **ESC** button.
- 2) Input the 4-digit destination code using the numpad.
- 3) Press the **OK** button.

This display can also be controlled by pressing **F7** or **F8**.

Unlike the destination blind, PIS settings will be passed through to the rear unit if you are operating as a 6 car formation.

Please see below for a list of the available destinations and their relevant code. The numerical code is what you need to input into the computer and the letter is if you wish to control the destination via the unit's number on an AI service.

0000/0 - Blank	0017/17 - Dumbarton Central	0034/34 - Largs
0001/1 - Airdrie	0018/18 - East Kilbride	0035/35 - Larkhall
0002/2 - Anderston	0019/19 - Edinburgh	0036/36 - Milngavie
0003/3 - Ardrossan Harbour	0020/20 - Exhibition Centre	0037/37 - Motherwell
0004/4 - Ardrossan Town	0021/21 - Garscadden	0038/38 - Neilston
0005/5 - Argyle Street	0022/22 - Glasgow Central	0039/39 - Newton
0006/6 - Ayr	0023/23 - Glasgow Queen Street	0040/40 - North Berwick
0007/7 - Balloch	0024/24 - Gourock	0041/41 - Paisley
0008/8 - Bathgate	0025/25 - Haymarket	0042/42 - Partick
0009/9 - Bellgrove	0026/26 - Helensburgh Central	0043/43 - Rutherglen
0010/10 - Carstairs	0027/27 - Hyndland	0044/44 - Shettleston
0011/11 - Cathcart Circle	0028/28 - Johnstone	0045/45 - Special
0012/12 - Charing Cross	0029/29 - Kilpatrick	0046/46 - Springburn
0013/13 - Coatbridge Central	0030/30 - Kilwinning	0047/47 - Wemyss Bay
0014/14 - Cumbernauld	0031/31 - Kingsknowe	0048/48 - Whifflet
0015/15 - Dalmuir	0032/32 - Kirknewton	0049/49 - Yoker
0016/16 - Drumgelloch	0033/33 - Lanark	0050/050 - Sorry, Not in Service

Strathclyde Manning Agreement (SMA) Radio



Bar actually being able to speak to the signalman, a fully functioning SMA/CSR unit is included in this pack. Introduced in 1986 in the Glasgow region, this system was known locally as the 'SMA', named after the Strathclyde Manning Agreement which required this radio to facilitate Driver Only Operation (DOO). It is the same system as what became the more widely known Cab Secure Radio (CSR). This radio allows direct communication between the driver and signalman. Please see below on how to use it.

Turning on and setting up

- 1) Move the reverser from 'Off' to 'Neutral' and wait for 'AREA NOT SET' or 'RADIO LOST' to appear.
- 2) Press the 'AREA' button.
- 3) Using the number keys, enter a 2-digit CSR area. If you make a typo, you can use '#' to erase the last digit. If using one of the included scenarios with this pack, the area number is given in the F1 briefing of the scenario.
- 4) Press the '*' button to validate the CSR area.
- 5) Wait for the area to register. It will appear on the left-hand side of the screen.

Registering your train

- 1) Press the 'SETUP' button.
- 2) Using the number keys, enter the number of the signal in front of you. This must be 4-digits so if the number is 55, this is input as 0055. If you make a typo, you can use '#' to erase the last digit.
- 3) Press the '*' button to validate the signal number.
- 4) Once the signal number is validated, the headcode of your train will appear on the right-hand side of the screen.

Contacting signalman at red signal

- 1) When standing at a red signal, press the 'STANDING AT SIGNAL' button.
- 2) The 'STANDING AT SIGNAL' button will illuminate when the message has been sent.
- 3) Soon after, the signalman will reply with 'WAIT'. This will always be the reply regardless of whether you can pass the signal or not so do still press 'Tab' if required.
- 4) To return to the previous screen, press the '#' button.

Lamp test

- 1) Hold the 'LAMP TEST' button.
- 2) All applicable status lights will illuminate.
- 3) Release the 'LAMP TEST' button.

CSR area placement in scenarios



CSR works by allocating an area number to each signal box (or panel in larger signal boxes) so the driver is always in contact with the signalman signalling his train. As the train moves from one area to another, the CSR unit will automatically change area. Also accompanying these changes in area, are lineside signs which state the number of the new area. This sign is included in this pack and must be placed by the scenario author if the CSR areas are to function.

This sign can be found by selecting 'AP/Common' in the 'Object Set Filter' and browsing for 'AP CSR Sign' in the left-hand 'Track Infrastructure' fly-out. To place it, simply place the marker on the track your train will be passing through, double click the sign, and input the area number in the right-hand fly-out. The area change will take place anywhere within 500m of this sign.

National Radio Network (NRN)



A simple representation of the NRN radio is simulated and is operational on pre-GSM-R liveries. To set the NRN zone, please follow the instructions below:

- 1) Turn the radio on by pressing the button below the volume control on the left-hand side of the console.
- 2) Enter the three-digit zone number by using the numpad.
- 3) To confirm this, press the green button below the British Rail arrows symbol. The NRN is now successfully set up.
- 4) If you see an NRN zone change sign (pictured below), you must change the zone number manually. Do this by simply entering the new three-digit zone number on top of the old one.

NRN zone placement in scenarios



NRN zones cover very large areas so it is entirely possible you will not change areas during a scenario but should you wish to do so, a sign is included in this pack and must be placed by the scenario author.

This sign can be found by selecting 'AP/Common' in the 'Object Set Filter' and browsing for 'AP NRN Sign' in the left-hand 'Track Infrastructure' fly-out. To place it, simply place the marker on the track your train will be passing through, double click the sign, and input the three-digit area number in the right-hand fly-out. Please note that this must be three-digits so zone 65 would be '065'.

Global System for Mobile Communication-Railway (GSM-R)



Beginning in 2013 and completed by 2016, Global System for Mobile Communication - Railway, more commonly known as GSM-R, replaced the existing National Radio Network (NRN) & Cab Secure Radio (CSR) systems. This communication system and its accompanying unit has been simulated to the best of our ability within the simulator. Please see below for how to register & deregister your train:

Registering

- 1) Move the reverser away from 'Off' or hold down either the 'Registration' or 'Accept' button for 5 seconds. The GSM-R unit will begin a boot up sequence.
- 2) When 'GSM-R GB' appears, the unit has successfully booted.
- 3) Press the 'Registration' button in the top right-hand corner.
- 4) Using the numerical keys, insert your 4-character train reporting number (headcode), followed by the signal number you are standing at in a 3-digit format. For example, signal WH84 would require you to enter '084'. If you wish to delete a character, press the 'x' button.
- 5) Press the '✓' button.
- 6) Registration will take a moment. Once it has completed, you will hear a double beep and the train reporting number will appear in the top right-hand corner of the display.



Deregistering - Method 1

If you are closing down the driving desk, use this method.

- 1) Move the reverser to 'Off'.
- 2) Deregistration will automatically begin and you will be given the opportunity for a short moment to retain the registration by pressing the '✓' button. Simply do nothing if you would like to continue with the deregistration.
- 3) Deregistration will take a moment. Once it has completed, the train reporting number will no longer be displayed.

Deregistering - Method 2

If you wish to keep the driving desk active after deregistering, use this method.

- 1) Press the 'Registration' button in the top right-hand corner.
- 2) A prompt will appear on the unit saying 'Confirm deregister?'.
- 3) Press the '✓' button.
- 4) Deregistration will take a moment. Once it has completed, the train reporting number will no longer be displayed.

Driver Only Operation (DOO)

Full door control is featured in this pack to simulate 'DOO'. Please see below for what the relevant procedure is and how to change the type of operation whilst in-game:

Driver Only Operation (DOO)

- 1) Open the doors by pressing **T+U** (left-hand side) or **T+O** (right-hand side).
Alternatively, you can click the corresponding red buttons in the cab which have arrows pointing to the side the doors will open.
- 2) If at a platform, wait for the 'Platform Duties Complete' message to appear in the top-right corner and press **R** to close the doors. If not at a platform, press **R** whenever you wish.
- 3) Once the door interlock light illuminates, you may depart.

Guard Operation (GO)

- 1) Open the doors by pressing **T**.
- 2) Doors will be closed by the guard once passengers have finished boarding/alighting.
- 3) Once the door interlock light illuminates, the guard will give you two bells which you must acknowledge by also giving two bells. This can be carried out by pressing **C** twice.

How to Change Operation

This can be changed in-game by turning the door key switch on the back wall and then pressing **Ctrl+R**. This will produce a visual message in the top-right hand corner of the screen to let you know which option you have selected.

Please note, the refurbished cab does not have a door key switch so you need only press **Ctrl+R** when using a refurbished livery.

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

Wheelslip protection aids the driver when powering or braking during times of poor adhesion.

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

- 1) The motors can be heard rising rapidly in pitch and power quickly falls to control the slip.
- 2) The motors revert to their normal pitch and power returns to the notch selected on the power handle.

As a driver, you must assess which power notch is most suitable for the conditions and balance the occurrence of wheelslip with the maximum possible rate of acceleration. To increase adhesion, you may use the sander for a maximum of 10 seconds whilst powering.

Wheelslide

When wheelslide is encountered during braking, a two-stage process takes place:

- 1) Brake pressure is automatically reduced to try and control the slide.
- 2) Once the slide stops, brake pressure is returned to the notch selected on the brake handle. If wheelslide reoccurs, the process starts again.

As a driver, you must resist the temptation to reduce the brake yourself as the wheelslip protection will offer the best braking performance.

Neutral Section Functionality

The class 318 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 included scenarios with this pack. These have been placed using our own markers and signage which are available in the 'AP/Common' object set filter folder.

Isolation Switches



Isolation switches allow safety systems to be isolated in the event of a failure or emergency and these have been simulated. To activate the EBS or AWS, you must first insert a master key into the corresponding lock and click the relevant flag. To activate the TIS, you only need to click the switch on the back wall. Please see below for a list of what each flag does:

- **AWS (AWS Isolating Switch)** - Non-driver's side - disables the AWS (Automatic Warning System). Labelled as TPWS in refurbished cab.
- **EBS (Emergency Bypass Switch)** - Driver's side - disables emergency brake.
- **TIS (Traction Interlock Switch)** - Back wall - disables the traction interlock so you can obtain power without door interlock.

Arcing Pantograph



Special attention has been given to simulating arcing between the pantograph and overhead wire.

From one hour after sunrise to one hour after sunset on a dry day, there is only light arcing.

From one hour after sunset to one hour after sunrise, there is moderate arcing to simulate the moisture that tends to build up on the overhead wire once night falls. There is also moderate arcing when raining at any time of day.

During the winter, from one hour after sunset to one hour after sunrise, there is heavy arcing to simulate ice/frost that tends to build up on the overhead wire once night falls. There is also heavy arcing when snowing at any time of day during the winter.

Finally, arcing becomes more frequent as you gain speed.

When arcing, you will visually see it on the pantograph which illuminates the area around it to a varying degree with each arc. Please note that the illumination of the surrounding area will only occur after sunset and before sunrise. This is to avoid the unrealistic appearance of projected light in broad daylight.

You will also audibly hear it if the arcing is moderate or heavy.

Variable Power & Brake Performance

Any train driver will tell you that especially on older stock, braking and power performance can vary quite noticeably from unit to unit, despite being within the same class. We have simulated this variance by randomly allocating a 'Brake Factor' & 'Power Factor' every time you drive a unit in the simulator. This factor can reduce or increase performance by a maximum of 8% either way. There is no way of finding out what factor your unit has been allocated except for assessing its 'feel' when powering or braking; just like a real driver!

Variable Traction Motor Volume

Class 318s are known for their loud traction motors but in reality, some are louder than others. To simulate this, we have implemented a random 'Motor Factor' to each motor bogie which ranges from 1 to 6; 1 being the quietest and 6 being the loudest. This cannot be changed by the player.

Thrash Mode

If you are someone who likes to enjoy the passenger view as if the windows are open, you are in luck! We have provided a 'Thrash Mode' which simulates just this so you can listen to those traction motors in all their glory. This can be turned on and off by pressing **Ctrl+T**.

Coupling Procedure

Please see below for how to couple to another unit in a realistic manner:

- 1) Approach the unit you are going to couple to at caution and come to a stop just short of it.
- 2) Select 'Notch 1' power and ease up to the unit. As soon as you have coupled, apply 'Step 3' brake and return the power handle to 'Off'.
- 3) To ensure the coupling is secure, you must perform a 'pull-away' test. To do this, select 'Reverse' on the reverser, 'Step 1' brake and apply 'Notch 1' on the power handle for a few seconds. If you do not move, the coupling has been successful.
- 4) Hold the 'Couple' button down on the cab desk for 5 seconds. This will connect the two units' air and electrical systems.

Cold Start

'Cold Start' means the unit is in the following state when it loads:

- Main reservoir, brake cylinder pressures are 0.
- Auxiliaries are tripped
- Pantograph is down
- Saloon lighting is off

To prepare a unit from cold, please follow the instructions below:

- 1) Hold the 'Aux Set' button down on the back wall of the cab for 5 seconds.
- 2) Turn the master key in by pressing **Shift+W**.
- 3) Move the reverser to 'Neutral' by pressing **S**.
- 4) Acknowledge the AWS self-test by pressing **Q**.
- 5) Press the 'Pantograph Up' button. The auxiliary compressor in the MSO will need to build up the air pressure to 5 bar before the pantograph can be raised. You can obtain updates on how this is progressing by pressing the 'Pantograph Up' button. Once 5 bar has been reached, press 'Pantograph Up' button and the pantograph will raise. Power will be fed to the train and you will hear the main compressor activate.
- 6) You must now wait for the main reservoir pressure to build to 6.5 bar. Once it has done so, you will be able to obtain a brake release.
- 7) If heading out in passenger service, turn the saloon lighting on by pressing **M** or the 'Lighting On' button on the back wall of the cab.

After carrying out this procedure, your unit will be successfully prepared from cold.

Bits and Bobs

This section is dedicated to aspects of this pack that don't warrant a dedicated section but are still of note:

- Nameplates included for 318259 & 318266.
- Power cannot be applied if the brake handle is in 'Step 2', 'Step 3' or 'Emergency'.
- If the brake handle is placed in 'Step 2', 'Step 3' or 'Emergency' whilst powering, power will be lost and you must return the power handle to 'Off' before being able to regain power.
- 1 second delay between train passing over AWS magnet and AWS warning sound occurring. The F3/F4 HUD will show the warning immediately so you must wait 1 second before trying to cancel it.
- The headlights only provide illumination before sunrise and after sunset. This is to avoid the unrealistic appearance of projected light in broad daylight.
- The headlight only functions when you have a line light.
- A special 'bogie cam' is available if you switch to the right-hand 'head-out' view (**Shift+2 THEN Right Arrow**).
- Wipers operate on AI services if it's raining
- Classic brake squeal sound on pre-refurbishment liveries.
- The frequency at which the spirax valve ticks varies on a per vehicle basis. The frequency also increases with main reservoir pressure.

Setting up the Driver's Cab

Please follow the steps below to set up the cab so you are ready to move:

- 1) Ensure the master key is turned in. If not, press **Shift+W**.
- 2) Ensure the reverser is in 'Neutral'. If not, press **S** and acknowledge the AWS self-test by pressing **Q**.
- 3) Turn off the tail lights by pressing **K**.
- 4) Turn on the headlight by pressing **H**.
- 5) If applicable, register the SMA/CSR or GSM-R.
- 6) If necessary, change the destination blind/display.
- 7) If you are operating a service where the doors are operated by the driver, turn the Door Key Switch & then turn it on.
- 8) Check the door interlock light is illuminated above the driver's side window.
- 9) If you have a proceed signal aspect and are in a cab fitted with a Driver's Reminder Appliance (DRA), turn it off by pressing **Y**.

You should now be ready to move off. For information on this, please see below.

Driving Guide

The following steps should allow you to drive in a realistic and safe manner:

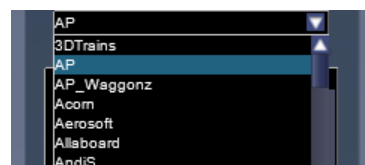
- 1) Move the reverser to your desired direction of travel by pressing either **W** for 'Forward' or **S** for 'Reverse'.
- 2) Move the brake handle to 'Step 1' by pressing **;**.
- 3) Move the power handle to 'Notch 2' by pressing **A**. At the same time, move the brake handle to 'Release' which will ensure you depart without rolling back.
- 4) From then on, increase power as you see fit.
- 5) To brake the train, you may make applications and releases by moving the handle between 'Step 1 and 'Full Service'. It is recommended you only use 'Full Service' as a last resort so as to ensure you always have more brake force available if required.
- 6) Just before coming to a stop, aim to have the brakes in 'Step 1' so as to provide a smooth stop.

How to Use in the Scenario Editor

How to place

To place in the scenario editor, please follow the instructions below:

- 1) In the left-hand rolling stock fly-out, click the object set filter which looks like a blue box with an orange arrow to the right of it.
- 2) Go to the right-hand fly-out which should have appeared. Select 'AP' from the drop-down menu.
- 3) Tick the second & third box beside 'Class318Pack01'.
- 4) The liveries should now be visible in the left hand rolling stock fly-out.



Formation

DTSOA + MSO + DTSOB

Numbering

When placing in the scenario editor, you are able to control a number of features via the number of the unit. Please note that for the unit number itself, the only number you need to change is the MSO's, as other vehicles in the consist will automatically be numbered correctly.

Destination

To apply a pre-set destination to a unit, add **;D=x** MSO number. See earlier in this manual for the relevant digit to use in place of **x**.

Overhead line decals

You can add older style OHL decals to a unit by adding **;OHL=1** to the MSO number.

Cold start

To activate cold start mode on a player train, add **;Cold=1** to the number of the DTSO which has the driver icon applied to it.

Strathclyde Manning Agreement (SMA)/Cab Secure Radio (CSR)

To allow realistic configuration of the CSR unit in scenarios, **;CSR=DAASSSTTTT** can be added to the driven vehicle. Please see below for what each sequence of letters represents:

- 'D' controls whether the CSR is already configured upon starting the scenario. Replace 'D' with '0' for no or '1' for yes.
- 'AA' is the 2-digit CSR area number required to set up the CSR at the start of the scenario. (eg. 75)
- 'SSSS' is the 4-digit signal number required to set up the CSR as the start of the scenario. (eg. 0439)
- 'TTTT' is the 4-character train reporting number of the train (eg. 1W40).

GSM-R

To restrict the train reporting number and signal number that the player can use to register with on the GSM-R, add **;GSMR=1A22084** to the leading drive vehicle. In this example, '1A22' is the train reporting number and '084' is the signal number.

Reversing motor whine

When changing direction, the motors will make a distinctive high pitch whining sound that slowly fades away over time. After one reversal, this sound activates automatically but to enable it at the start of a scenario, add **;RW=1** to the MSO number. This is mostly intended to be used when a scenario starts at a terminus.

Nameplate

If using a unit number with a nameplate, add **;NP=0** to the MSO number to remove it.

Example MSO number

318266;D=10;NP=0

Key:

318266 - Unit number

;D=10 - Destination

;NP=0 - Remove nameplate

Scenarios

APC318: 1H04 08:01 Helensburgh Central - Airdrie

Route = Suburban Glasgow Northwest to Airdrie
Track covered = Helensburgh Central - Airdrie
Traction = SPT 318250 & 318263
Date = 5th June 2007
Duration = 1 hour 15 minutes



APC318: 2V45 09:27 Springburn - Partick/2C52 10:01 Partick - Springburn

Route = Suburban Glasgow Northwest to Airdrie
Track covered = Springburn - Hyndland Loop - Springburn
Traction = ScotRail 318259
Date = 20th February 2022
Duration = 1 hour



APC318: 2V66 17:07 Milngavie - Springburn

Route = Suburban Glasgow Northwest to Airdrie
Track covered = Milngavie - Springburn
Traction = ScotRail 318266
Date = 13th July 2022
Duration = 40 minutes



APC318: 5E60 09:46 Airdrie - Yoker C.S.

Route = Suburban Glasgow Northwest to Airdrie
Track covered = Airdrie - Yoker C.S.
Traction = Ex-SPT Rail 318260
Date = 4th November 2015
Duration = 50 minutes



APC318: 2B78 07:10 Motherwell - Carstairs

Route = WCML North
Track covered = Motherwell Derby Carriage Sidings - Carstairs
Traction = SPT (ScotRail) 318255
Date = 9th December 2003
Duration = 40 minutes



APC318: 2F15 18:52 Lanark - Dalmuir

Route = WCML North
Track covered = Lanark - Glasgow Central Low Level
Traction = SPT (ScotRail) 318269
Date = 5th November 2003
Duration = 1 hour 5 minutes



Credits

Gü Studios - Modelling & texturing

Nicolas Schichan - Scripting

Great Northern - Assistance in recording sounds