Class 40 Locomotive

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How to install

- Locate where you have downloaded this pack and unzip it. Information on how to do this can be found <u>here</u>.
- 2) Go to the location where you have extracted the files from the .zip file.
- 3) Now find the .exe file called 'Class 40 Locomotive Pack'. Double-click this file.
- 4) Follow the steps and by the end of the process, 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 relevant payware add-on packs listed on the product page installed so the scenarios function as intended.

Important functionality information

- To make sure the engine sounds work correctly in this pack, please ensure that if you have been using the simulator beforehand, restart it before loading a scenario featuring this locomotive. This includes if you are loading a scenario direct from the scenario editor to the simulator. This is due to a fault with the simulator.
- If you would like to save a scenario when using this locomotive and return to it at a later time, you must come carry out the following procedure which is due to the very complex scripting that has been implemented in this pack:

Saving the scenario

- 1) Come to a stop.
- 2) Press the 'S' key to move the Reverser into the 'Off' position.
- **3)** Press the 'E' key to remove the master key.
- **4)** Press the 'Ctrl+-' key to move to the other cab.
- 5) Press the 'Ctrl+B' key to switch in the battery isolation switch
- 6) Save the scenario.

Resuming the scenario

- 1) Resume the scenario.
- 2) Press the 'Ctrl+B' key to switch out the battery isolation switch
- **3)** Press the 'Ctrl+-' key to move to the other cab.
- **4)** Press the 'E' key to insert the master key.
- 5) Ensure the AWS change end switch is in the 'On' position.
- 6) Press the 'Q' key to reset the AWS self-test.

Technical information

Manufacturer	Vulcan Foundry/ Robert Stephenson and Hawthorns					
Years built	1958 - 1962					
Number built	200 (D200 - D399)					
Engine	English Electric 16SVT MkII					
Maximum speed	90mph (140km/h)					
Coupling type	Screw					
Length	21.18m					
Height	3.91m					
Width	2.74m					
Weight	135 tonnes					

Main variants

BR blue/centre headcode box - Blue Centre Dual/Vac



BR blue/headcode discs - Blue Disc Dual/Vac







BR blue/split headcode boxes - Blue Split Dual/Vac

BR green/centre headcode box - Green Centre Vac





BR green/headcode discs - Green Disc Vac



BR green/split headcode boxes - Green Split Vac





Detailed variants

Out of the 200 locomotives produced, each became increasingly unique over the years. Whether it was keeping their nose end doors or the positioning of the lamp brackets, a locomotive's number could often be identified by hardcore class 40 enthusiasts without even looking at the number itself. Please find a comprehensive list below of the details included. The relevant ones are automatically added in-game to the relevant locomotive:

No discs



Plated nose door no.1 end (40058)



Extra lamp bracket (40081)



Longer lamp brackets (40122)



No nose door



Brackets





Extra, long nose handrail



Top lamp bracket



Mid lamp bracket



Communications port



Split - Inner headcode dots



Split - Centre headcode dots



Split - Outer headcode dots



Plated headcode box (40158)



Headboard holder



Centre/bottom lamp bracket



Centre - Inner headcode dots



Centre - Outer headcode dots



Scottish variant



Yellow headcode box (40062)



Ladder bolts



Rear sanders





Multiple working equipment



Stone boiler



Clayton boiler



Haymarket pipework



Water tank



Nose top handrails



Ex-nameplate bolts



No boiler step



Cab guide

Vacuum braked - driver's side



- 1 Locomotive straight air brake
- 2 Vacuum train brake
- 3 Window wiper switch
- 4 Brake pipe gauge
- 5 Speedometer
- 6 Vacuum brake gauge
- 7 Ammeter
- 8 Locomotive brake cylinder gauge
- 9 Throttle
- 10 Reverser
- 11 Driver's warning panel
- 12 Gauge dimmer switch

- 13 AWS reset button
- 14 AWS sunflower
- 15 Horn
- 16 DSD pedal
- 17 Window wiper motor
- 18 Master key
- 19 Sander button
- 20 Engine start button
- 21 Engine stop button
- 22 Opposite end horn
- 23 Nose compartment light switch



Vacuum braked - second man's side



- 1 Boiler steam pressure gauge
- 2 Water tank level gauge
- 3 Handbrake
- 4 Vacuum chamber release valve (inoperable)
- 5 DSD hold over switch (inoperable)
- 6 Handbrake indicator
- 7 Second man's window wiper switch
- 8 Fire extinguisher cover (inoperable)
- 9 Boiler emergency shutoff button
- 10 Second man's window wiper motor

Dual braked cab

The dual braked cab is identical to the vacuum braked one apart from the items shown below:



1 - Westinghouse (air and vacuum) train brake

- 2 Westinghouse M8 equipment
- 3 Locomotive straight air brake
- 4 Main air reservoir gauge

Bulkhead wall



- 1 Brake mode display
- 2 Engine room light switch

3 - AWS isolator switch4 - AWS change end switch

Keyboard controls

Non-standard keyboard controls are listed below:

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Ctrl+N -	AWS Isolator Switch DOWN/UP						
Ctrl+B -	BIS (Battery Isolation Switch) ON/OFF						
L -	Cab light ON/OFF						
Z -	Engine start button						
. (full stop) -	Engine stop button						
F -	Fill water tanks						
/ -	Handbrake ON/OFF						
Ctrl+U -	1 st headcode character DOWN (Centre & Split only)						
Shift+U -	1 st headcode character UP (Centre & Split only)						
Ctrl+I -	2 nd headcode character DOWN (Centre & Split only)						
Shift+I -	2 nd headcode character UP (Centre & Split only)						
Ctrl+O -	3 rd headcode character DOWN (Centre & Split only)						
Shift+O -	3 rd headcode character UP (Centre & Split only)						
Ctrl+P -	4 th headcode character DOWN (Centre & Split only)						
Shift+P -	4 th headcode character UP (Centre & Split only)						
Space -	Horn (low tone)						
В -	Horn (high tone)						
-	Instrument lights switch ON/OFF						
Ctrl+Shift+O -	Marker light centre ON/OFF (Disc only)						
Ctrl+Shift+P -	Marker light left ON/OFF (Disc only)						
Ctrl+Shift+I -	Marker light right ON/OFF (Disc only)						
Ctrl+Shift+U -	Marker light top ON/OFF (Disc only)						
E -	Master key IN/OUT						
Page Down -	Radiator shutters CLOSE						
Page Up -	Radiator shutters OPEN						
M -	Route indicator light ON/OFF (Centre & Split only)						
J -	Tail lights ON/OFF						
R -	Train brake pin UP						
End -	Water scoop LOWER						
Home -	Water scoop RAISE						
V -	Window wiper ON						
Shift+V -	Window wiper OFF						

Features

- All 200 examples represented with their numerous visual differences for both BR blue and green liveries
- Detailed internal & external audio
- Accurate performance physics
- Dynamic exhaust smoke
- 25 individually modelled nameplates (BR green D210-D235 except D226)
- Separate vacuum and dual braked cabs
- Options screen
- Functional brake modes (air/vacuum/passenger/goods)
- Locomotive faults
- Steam heat boiler
- Cold start option
- Player changeable headcode blinds
- Finite sanders
- BIS (Battery Isolation Switch) functionality
- Working master key
- Prototypical reverser function
- AWS self-test
- Opening cab doors and windows
- Cab instrument lighting

Options screen

If you press the left-hand arrow key whilst in the cab view, you will be presented with the options screen below which controls many of the features to be found on this locomotive:



- 1 Traction motor status/isolation buttons
- 2 Boiler control switch
- 3 Brake mode selector switch

- 4 Boiler water level gauge
- 5 Sand box level
- 6 Engine temperature gauge

Brake selector switch

The brake selector switch allows you to select different modes of braking, either 'Air' or 'Goods' and 'Passenger' or 'Goods'. It's very important you set this correctly as failing to do so may result in only the locomotive having functioning brakes.

The key thing to note before attempting to couple to any rolling stock is the brake type of the stock or the dominant brake type on a partly fitted train.

With this in mind, we can look at the Selector Switches which can be found on the options screen:



Vacuum Only Brake Selector



Dual Brake Selector

It should be stressed that Vacuum Passenger mode should always be selected when running light engine.

Vacuum Braked Only - When hauling any vacuum braked stock, Passenger mode should be used. Passenger in this case simply means any stock that is fitted with brakes. When an entire train is unfitted apart from brake vans the goods position should be selected.

Dual Braked – Two new brake options are available on the dual braked locomotive which are 'Air Passenger' and 'Air Goods'. All modes can be used to suit the locomotives duty's, taking into account the brake mode of stock and stock type.

Also, please note that brake modes can only be changed whilst disconnected from rolling stock. The correct procedure is to run to your stock in Vacuum Passenger mode, then when stopped, change the brake mode to the required mode and then couple.



Locomotive faults

Traction motor failure

This fault occurs when the locomotive amps have been pushed to their limits for as little as 20 seconds. To prevent a flashover, 2600 amps or over may only be used for a very brief period, 2000 – 2500 amps up to 5 minutes, 1800 – 2000 up to half an hour and anything below 1800 is allowed constantly.

If a flashover occurs it is due to one of the above excessive stresses put on the traction motors. Any one of six can fail resulting in loss of tractive power and the need to isolate the now unusable motor. To isolate the motor, the engine must firstly be shut down and then on the options screen, the damaged motor will show red, click the red motor and it should turn black. Now you have isolated that motor, you can start the engine and continue as normal.

Traction motors can be isolated even if they are healthy (green) by clicking on one with the engine off. They can also be clicked again once isolated to reconnect them.

High engine temperature

This fault occurs when the locomotive has been worked hard, usually at low speeds. This matter can be made worse if the radiator shutters are closed on the locomotive leading to the warm engine room compartment circulating hot air through the cooling system.

Even with the radiator shutters open, you may still run into issues. In this instance the fault light in the cab will illuminate indicating the high temperature. At this point, the driver should reduce power and allow the engine to cool before attempting to apply power again. If the fault light is ignored and temperatures continue to rise, the engine will shut down upon reaching danger levels.

Once the engine shuts down, you must wait for the temperature to fall into the safe zone before restarting. The temperature gauge is visible in the options menu with the safe zone denoted as green.



Steam heat boiler

The steam heat boiler is primarily used to provide heating to coaching stock in the colder months of the year. Below is the method that should be taken to start the boiler.

If you are using the 'cold' variant of the locomotive, you will need to fill the water tank which can either be carried out whilst stationary or on the move (Green locos only), using the water scoop at a water trough. The standard/warm variant of the locomotive already has water in the tank but you may need to replenish on long journeys.

First of all, in the scenario editor, you must place two scenario markers which can be activated by clicking the 'ScenarioMarkers' box within the 'RailRight' provider/product filter; the same method that is used for making locomotives appear in the rolling stock list. They will then be found in the 'Track Infrastructure' part of the right-hand object list fly-out.

Filling the water tanks whilst stationary

- 1) Select the 'Class 40 Water Stationary Fill' marker and place two, one at the start of the piece of track where you would like the filling to take the place and then the other at the end. The first marker basically tells the locomotive when to activate the ability to fill the water tank and the second marker when to deactivate. Please note that the locomotive must move over the first marker for the feature to be activated, it won't work just by starting a scenario with markers either side of the locomotive.
- 2) Once the locomotive is stationary between the two markers, hold the 'F' key down and the water tank level gauge on the second man's side of the cab should start rising. When you deem the locomotive has sufficient water, let go of the 'F' key.

Filling the water tanks whilst moving

- **1)** Select the 'Class 40 Water Trough Fill' marker and place two on the track, one at the start of the water trough and the other at the end of it.
- 2) When the locomotive is over the water trough, hold down the 'Home' key for a couple of seconds which will lower the water scoop. The water tank level gauge on the second man's side of the cab should now start rising.



3) Before the end of the water trough, hold down the 'End' key for a couple of seconds which will raise the water scoop.

Preparing the boiler

Before you can run the boiler, you must transfer some water to the boiler water tank. To do this, go to the options screen and change the Boiler Control Switch from 'Off' to 'Fill'. Now watch as the water level increases on the Boiler Water Level Gauge on the options screen. Keep the switch in the 'Fill' position until the boiler is $\frac{1}{2} - \frac{3}{4}$ full.

Starting the boiler

We are ready to start the boiler. To do this, change the Boiler Control Switch from 'Fill' to 'Run'. Now the boiler will heat the water and steam will start to generate within 2 – 5 minutes depending on the amount of water in the boiler. Upon steam generation, the boiler light on the second man's side of the cab will illuminate and PSI will build on the Boiler Steam Pressure Gauge. If the water level of the boiler runs low make sure to fill before it runs out.

Cold start

'Cold start' means that when you load the locomotive, it will be shut down and is not intended to be used when you start a scenario connected to rolling stock. This variant of the class 40 can be found by selecting a loco in the scenario editor with the suffix, 'Cold'. Upon loading a cold class 40, the following procedures must be taken to correctly start the locomotive:

No.2 end cab

- **1)** Make sure you are in the no.2 end cab. You confirm this by looking at the sticker above the door to the nose in the centre of the cab.
- 2) Press the 'Ctrl+B' key to switch out the battery isolation switch. This will illuminate the 'Engine Stopped' and 'Fault' lights on the driver's warning panel. The 'Engine Stopped' light is illuminated because the engine is off and the 'Fault' light is illuminated because the engine requires priming before attempting to start.
- **3)** Ensure the AWS isolator switch is in the up position.
- 4) Ensure the brake mode is set to 'Vac Pass' by using the options screen.



No.1 end cab

- **1)** Press the 'Ctrl+-' key to move to the no.1 end cab.
- 2) Ensure the AWS Isolator Switch is in the up position.
- 3) Press the 'E' key to insert the master key.
- **4)** Move the AWS change end switch up so it is in the 'On' position and press the 'Q' key to reset the AWS self-test.

Radiator shutters

The radiator shutters can be found on the outside of the locomotive at the no.1 end:



Closed



In the winter months, it is recommended to have these closed ('Page Down' key) during start up to allow warm air to circulate within the engine compartment which speeds up the start. In summer however, it's best to keep them open ('Page Up' key). Once the locomotive has been idling for a few minutes, it's recommended that you open them regardless of season to prevent overheating once underway.

Return to the no.1 end cab

- **1)** Press the 'W' key to move the reverser to the 'Engine Only' position and allow the engine to prime for at least 60 seconds.
- **2)** Press and hold the engine start button by holding down the 'Z' key until the 'Engine Stopped' light extinguishes.
- **3)** After 20 to 30 seconds, the 'Fault' light will extinguish and sufficient air will have built up in the main reservoir.
- 4) Move the handbrake to the 'Off' position by using the '/' key.



Preparing the locomotive

Trailing cab

Please follow these instructions in the opposite cab you intend to drive from:

- 1) Insert the master key by pressing the 'E' key. Please note that if the master key is inserted in the other cab, you must remove it from there before inserting it in this one. When removing it, the Reverser must be in the 'Off' position.
- 2) Ensure the locomotive straight air brake is fully released.
- **3)** Ensure the train brake is in the 'Shut Down' position on a dual-braked locomotive and 'Running' on a vacuum-only locomotive.
- **4)** Ensure the AWS isolator switch is in the up position.
- 5) Ensure the AWS change end switch is in the 'Off' position.
- 6) If running light engine, turn the tail lights on using the 'J' key.
- 7) Remove the master key pressing the 'E' key.

Driving cab

Switch cabs and follow these final instructions:

- **1)** Insert the master key by pressing the 'E' key.
- 2) Ensure the AWS isolator switch is in the up position.
- **3)** Ensure the AWS change end switch is in the 'On' position.
- **4)** Press the 'Q' key to reset the AWS self-test.
- **5)** Turn the marker lights on.
- 6) Ensure the brake mode is correct for the duties you are about to undertake.
- 7) If the train brake handle is in the 'Shut Down' position, lift up the pin holding it in place by holding the 'R' key and then at the same time, move the train brake handle to the 'Emergency' position by pressing the ';' key.

You should now be ready to move off. For information on how to do so, please see the *Driving guide* section below.

Driving guide

The following steps should allow you to drive the class 40 in a proper manner:

- **1)** Move the reverser to your desired direction of travel by pressing either the 'W' key for forward or the 'S' key for reverse.
- 2) Apply some power by pressing the 'A' key until you reach the required tractive effort to get your train on the move. At the same time, move the train brake handle to the 'release' position. Please note that when using the vacuum brakes, you can make the brakes release quicker by holding down the ';' key which speeds up the exhausters.
- **3)** You may now increase power as you see fit, making sure to not place too much stress on the traction motors as described in the <u>*Traction motor failure*</u> section of this manual.
- **4)** To brake the train using the dual train brake, you may make graduated applications and releases by moving the handle between notches 'running' and 'full service'. To brake the train using the vacuum train brake, simply move the brake handle into the apply section which will apply at a quicker rate the further you place it towards 'Emergency'. When you have reached your desired rate of braking, move the handle back to the 'Running' position which will hold the brake application. To release the brake, you will need to move the brake handle to the 'Release' position.
- 5) In the event of an emergency brake application, the locomotive will come to a stop where you must do the following to release the brakes. Move the reverser to 'Neutral', the power handle to '0%', the train brake handle to 'Emergency' and then you should be able release the brakes.

How to use in the scenario editor

How to place

To place the class 40 in the scenario editor, please follow the instructions below:

- 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.
- Go to the right-hand fly-out which should have appeared. Select 'RailRight' from the drop-down menu.
- Tick the second box beside 'Class40Blue' and 'Class40Green'.
- 4) The class 40 variants should now be visible in the left hand rolling stock fly-out. Variants with the 'Dual' suffix are dual braked and variants with the 'Vac' suffix are vacuum braked only.



RailRight	$\mathbf{\nabla}$
RSC	
RSDL	
RScott	
RSderek	
RailRight	



Class 40 Blue Centre Dual Class 40 Blue Centre Dual Cold Class 40 Blue Centre Vac Class 40 Blue Disc Dual Class 40 Blue Disc Dual Class 40 Blue Disc Vac Class 40 Blue Disc Vac Class 40 Blue Split Dual Class 40 Blue Split Dual Class 40 Blue Split Dual Class 40 Blue Split Vac Class 40 Green Disc Vac Class 40 Green Disc Vac

Numbering

When placing a class 40 in the scenario editor, you are able to control a number of features via the dynamic number. Please see below for an explanation:

Class 40 Blue Split Dual & Centre Dual

Number format: ABCDE@@@@@####

A - Brake Mode Start Position 0 = AirGoods / 1 = AirPass / 2 =VacPass / 3 =VacGoods
B - 0 = Pre Tops numbering / 1 = Tops numbering
C - 0 = Headcode Letters / 1 = Headcode Dots
D - 0 = Red buffers / 1 = Black Buffers
E - 0 = frost grille / 1 = no frost grille
@@@@@@ = 5 digit unit number (use the full TOPS number, eg. 40145)
= 4 digit headcode (number/letter/number/number for use with blinds)
Vacuum braked examples of the above are exactly the same apart from the removal of

Vacuum braked examples of the above are exactly the same apart from the removal o the Brake Mode Start position option.

Class 40 Blue Disc Dual

Number format: ABCD@@@@@EFGH

A - Brake Mode Start Position 0 = AirGoods / 1 = AirPass / 2 =VacPass / 3 =VacGoods
B - 0 = Pre Tops numbering / 1 = Tops numbering
C - 0 = frost grille / 1 = no frost grille
D - 0 = Red buffers / 1 = Black Buffers
@@@@@@ = 5 digit unit number (use the full TOPS number, eg. 40145)
E = Top Headcode Disc Start Position 0 = Up / 1 = Open / 2 =Closed
F = Right Headcode Disc Start Position 0 = Up / 1 = Open / 2 =Closed
G = Centre Headcode Disc Start Position 0 = Up / 1 = Open / 2 =Closed
H = Left Headcode Disc Start Position 0 = Up / 1 = Open / 2 =Closed

Vacuum braked examples of the above are exactly the same apart from the removal of the Brake Mode Start Position option.

Class 40 Green – Split & Centre

Number format: A@@@####

A – Yellow Warning panel 0 = Full Green / 1 = Half Yellows / 2 = Full Yellows
 @@@ = 3 digit unit number (Use the Pre TOPS number, e.g. 335)
 #### = 4 digit headcode (number/letter/number/number for use with blinds)

<u> Class 40 Green – Disc</u>

Number format: A@@@BCDE

A – Yellow Warning panel 0 = Full Green / 1 = Half Yellows / 2 = Full Yellows
@@@ = 3 digit unit number (Use the Pre TOPS number, e.g. 335)
B = Top Headcode Disc Start Position 0 = Up / 1 = Open / 2 = Closed
C = Right Headcode Disc Start Position 0 = Up / 1 = Open / 2 = Closed
D = Centre Headcode Disc Start Position 0 = Up / 1 = Open / 2 = Closed
E = Left Headcode Disc Start Position 0 = Up / 1 = Open / 2 = Closed

Please note, if you wish to change the actual number of the locomotive such as '40152' or 'D204', the number must be correct to the variant you are using. Please see the 'Appendix' at the end of this manual for a list of numbers and their corresponding variant.

Scenarios

APC40: 1A41 17:00 Edinburgh Waverley - Aberdeen

Route = Just Trains - Scottish ECML Track covered = Edinburgh Waverley - Dundee Traction = BR Blue 40057 Year = 1980 Duration = 1 hour 25 minutes

APC40: 1G20 18:20 Aberdeen - Edinburgh Waverley

Route = Just Trains - Scottish ECML Track covered = Dundee - Edinburgh Waverley Traction = BR Blue 40160 Year = 1981 Duration = 1 hour 30 minutes

APC40: 6A58 18:00 Oxwellmains - Craiginches Yard

Route = Just Trains - Scottish ECML Track covered = Haymarket West Junction - Dundee Traction = BR Blue 40126 Year = 1980 Duration = 1 hour 35 minutes

APC40: 1M10 10:10 Glasgow Central - London Euston

Route = Settle to Carlisle Track covered = Carlisle - Settle Traction = BR Blue 40152 Year = 1983 Duration = 1 hour 35 minutes











APC40: 1M26 16:00 Leeds - Carlisle

Route = Settle to Carlisle Track covered = Settle - Carlisle Traction = BR Green D200 Year = 1983 Duration = 1 hour 30 minutes

APC40: 6E54 10:31 Ribblehead A.R.C. - Healey Mills (Part 1)

Route = Settle to Carlisle Track covered = Ribblehead Sidings - Blear Moor Traction = BR Blue 40143 Year = 1982 Duration = 15 minutes

APC40: 6E54 10:31 Ribblehead A.R.C. - Healey Mills

(Part 2) Route = Settle to Carlisle Track covered = Blear Moor - Settle Traction = BR Blue 40143 Year = 1982 Duration = 30 minutes

APC40: 6M75 05:00 Healey Mills - Ribblehead A.R.C.

Route = Settle to Carlisle Track covered = Settle Junction - Ribblehead Sidings Traction = BR Blue 40143 Year = 1982 Duration = 20 minutes









Credits

We would like thank the following individuals for their contribution to this add-on:

RailRight: Modelling and texturing

Waggonz: Scripting

Armstrong Powerhouse: Sounds and scenarios

Beta Testers: Darren Porter, Richard Fletcher, Thomas Harrison, Chris Harrison, Sean Harris & Jim Nobbs

Special Thanks: Jordi Blumberg & Chris Gallagher



Appendix

Numbers and their corresponding variant

Class 40 Blue Centre Dual

	10000	10115	10151	40457	10100	10100		10101	40400	
	40060	40145	40151	40157	40163	40168	40174	40181	40189	40194
	40061	40146	40152	40158	40164	40169	40176	40182	40190	40195
	40063	40147	40153	40159	40165	40170	40177	40185	40191	40196
	40064	40149	40154	40160	40166	40171	40178	40186	40192	40197
	40066	40150	40155	40162	40167	40172 40180		40188	40193	40199
Class 40 Blue Centre Vac										
	40062	40148 40161 40175 40183		40183	40187					
	40065 40156 40173 40179 40184				40184	40198				
Class 40 Blue Disc Dual										
	40001	40014	40029	40043	40053	40068	40078	40086	40098	40117
	40002	40015	40030	40044	40054	40069	40079	40089	40099	40118
	40004	40016	40033	40045	40055	40071	40080	40090	40100	40119
	40005	40021	40034	40047	40056	40072	40081	40091	40102	40122
	40006	40022	40035	40048	40057	40073	40082	40093	40104	40124
	40007	40024	40038	40050	40058	40074	40083	40095	40110	
	40012	40027	40039	40051	40059	40076	40084	40096	40111	
	40013	40028	40041	40052	40067	40077	40085	40097	40113	
	Class 4	40 Blue	Disc V	ас						
	40003	40011	40020	40031	40040	40070	40092	40105	40109	40116
	40008	40017	40023	40032	40042	40075	40094	40106	40112	40120
	40009	40018	40025	40036	40046	40087	40101	40107	40114	40121
	40010	40019	40026	40037	40049	40088	40103	40108	40115	40123
Class 40 Blue Split Dual										
	40126	40128	40130	40132	40134	40136	40140	40143		
	40127	40129	40131	40133	40135	40137	40141			
	Class 4	40 Blue	Split V	'ac						
	40125	40138	4 0139	40142	40144					

Class 40 Green Centre Vac

	D260	D266	D350	D356	D362	D368	D374	D380	D386	D392	D398
	D261	D345	D351	D357	D363	D369	D375	D381	D387	D393	D399
	D262	D346	D352	D358	D364	D370	D376	D382	D388	D394	
	D263	D347	D353	D359	D365	D371	D377	D383	D389	D395	
	D264	D348	D354	D360	D366	D372	D378	D384	D390	D396	
	D265	D349	D355	D361	D367	D373	D379	D385	D391	D397	
Class 40 Green Disc Vac											
	D200	D211	D222	D233	D244	D255	D273	D284	D295	D306	D317
	D201	D212	D223	D234	D245	D256	D274	D285	D296	D307	D318
	D202	D213	D224	D235	D246	D257	D275	D286	D297	D308	D319
	D203	D214	D225	D236	D247	D258	D276	D287	D298	D309	D320
	D204	D215	D226	D237	D248	D259	D277	D288	D299	D310	D321
	D205	D216	D227	D238	D249	D267	D278	D289	D300	D311	D322
	D206	D217	D228	D239	D250	D268	D279	D290	D301	D312	D323
	D207	D218	D229	D240	D251	D269	D280	D291	D302	D313	D324
	D208	D219	D230	D241	D252	D270	D281	D292	D303	D314	
	D209	D220	D231	D242	D253	D271	D282	D293	D304	D315	
	D210	D221	D232	D243	D254	D272	D283	D294	D305	D316	
Class 40 Green Split Vac											
	D325	D327	D329	D331	D333	D335	D337	D339	D341	D343	
	D326	D328	D330	D332	D334	D336	D338	D340	D342	D344	