



TRANSPORT FOR WALES BR CLASS 142 'PACER' DMU

LOCOMOTIVE EXPANSION FOR
TRAIN SIM WORLD 6



Just Trains™

More Just Trains add-ons for Train Sim World 6



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Locomotive expansion for Train Sim World 6

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INTRODUCTION

The Transport for Wales (TfW) Class 142 Pacer has been especially created for use on the Dovetail Games [Cardiff City Network: Radur & Coryton – Penarth & Bae Caerdydd Route Add-On](#). The Class 142 Pacer was used extensively in the UK and specifically by Arriva Trains Wales in Wales. These Arriva DHMUs were taken over by Transport for Wales in October 2018.

The Just Trains Pacer features the transition livery when the Arriva names and logos were removed and TfW branding was placed over the basic underlying Arriva livery.

Two versions are included: one with no TfW branding at all and the other with the TfW large side-length 'THE START OF A NEW JOURNEY' banner art proclaiming the transition to TfW operations. The Pacer is compatible with Livery Designer.

As is the case with many trains, there have been numerous changes and variations throughout their lives, and we have incorporated these into our TfW 142 to make it time-period correct.

Aside from the de-branding of the previous operator, our version has LED headlights, the four-leaf doors replaced with two-leaf bi-fold doors, updated door open/close operating buttons, sanding equipment to assist with slippery rails, and the 'smash glass to access emergency door handle' feature (non-operational in the simulation). On the roof are the NRN (National Radio Network) and GSM-R (Global System for Mobile Communications – Railway) antennas.

For those new to the Pacer a Tutorial is provided.

With five engaging scenarios and a custom Timetable that covers a 24-hour period set in 2019, this Just Trains Pacer will give you the authentic TfW Pacer experience.

TECHNICAL SUPPORT

For technical support (in English) please visit the [Support](#) pages on the Just Trains website.

As a Just Trains customer you can obtain free technical support for any Just Trains product.

JUST TRAINS NEWS

To get all the latest news about Just Trains products, special offers and projects in development, [subscribe](#) to our regular emails.

We can assure you that none of your details will ever be sold or passed on to any third party and you can, of course, unsubscribe from this service at any time.

You can also keep up to date with Just Trains via [Facebook](#), [X](#) (formerly Twitter) and [Bluesky](#).

CLASS 142 PACER

British Rail Class 142 Pacers are Diesel Hydraulic Multiple Units (DHMU) built for British Railways from 1985 to 1987. The class is fairly unique in that it was built to try and keep development costs down and was therefore built with a high level of commonality with a Leyland-National road bus. For example, the Pacers have folding access doors just like a bus.

The Class 142 does not have separate bogies and the axles are attached directly to the train chassis, which can result in some distinctive ride characteristics. The last Class 142 set was withdrawn from UK public service in 2020, but many have been bought by heritage railways and are still in regular use.

Class 142 TfW Transition Livery



Class 142 TfW Transition Banner Livery



Boarding the Pacer

As the driver's cabs are accessed via the passenger doors, there is a specific way to enter the train via a specific cab access door. To get on board, walk to the end of the train you are going to be driving and face the door control panel next to the folding entry doors.



Use your key to unlock the door panel cover and then, when it is unlocked, use your mouse to open the cover.



Inside the panel you will see three buttons. Press the red OPEN one to open the doors.

Before you enter the train, close the control panel cover and lock it.

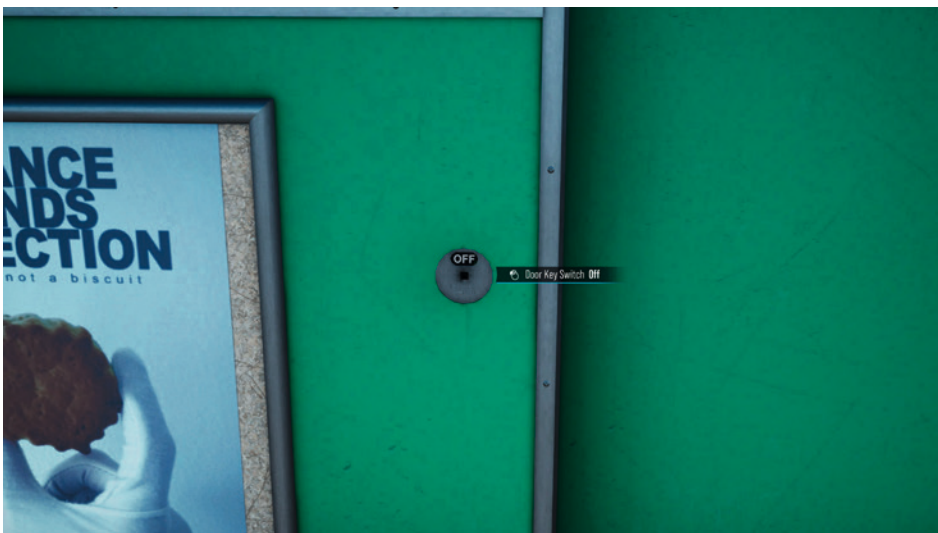
You can now enter the train and use the handle to open the driver's door so you can get access to the cab.

Don't forget to close the doors before you depart, either via the game HUD or manually as described below.

Manual operation of the passenger doors

You can remotely open and close the doors by using the HUD controls when driving from the cab, but if you want to manually operate the doors, use the following method.

With the train fully stopped, insert and twist your key anti-clockwise in the round door key switch on the bulkhead behind the driver's cab. It will show Green/OFF when the doors cannot be operated and Red/ON when the doors can be operated.



Next, look above the passenger door and you will see a hole for your key below the TRAIN CREW DOOR INSTRUCTIONS label. Insert your key and twist it. The rectangular flap to its left will flip open.



To only open the door which you are standing next to, press the red LOCAL OPEN button. All the other doors will stay closed and locked. If you want to open ALL the doors on the platform side, press the two red DOOR RELEASE buttons.

To only close the door you are next to, if that is the only one open, press the blue CLOSE button. Do the same if all the doors are open and you want to close them all.

When you have finished working with the doors, turn the bulkhead door key switch back to Green/OFF with your key and close the flap that covers the buttons.

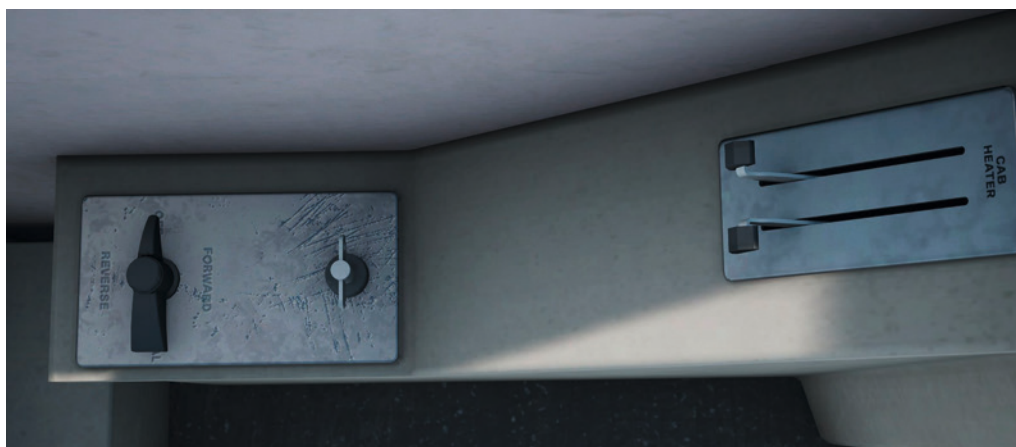
If you are being the train guard, the green SIGNAL button behind this flap sounds the guard's buzzer in the driver's cab. The buzzer will only sound if the bulkhead-mounted door key switch is set to Red/ON, so be sure to press it before you turn the door key switch to Green/OFF. The door control flap can be closed at any time after you have finished with the door controls.



Use the door handle to open/close the driver's cab door.



Master key and reverser panel

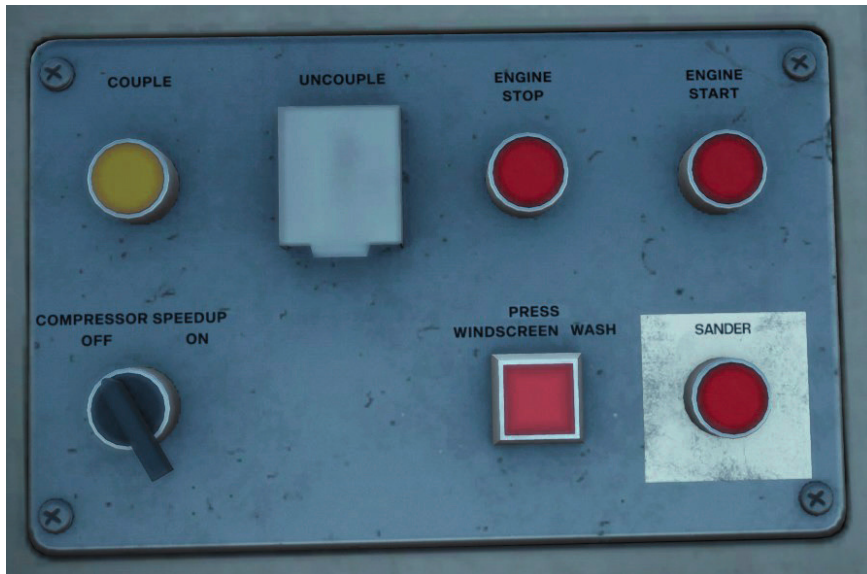


Master key – ON/OFF.

Reverser – OFF/FORWARD/NEUTRAL/REVERSE.

CAB HEATER (inoperative in this simulation).

Engine and coupling panel



COUPLE – press to couple to another unit.

UNCOUPLE – lift the switch guard and press the button to uncouple.

ENGINE STOP – press to stop the engine.

ENGINE START – press and HOLD to start the engine.

COMPRESSOR SPEEDUP – switch to ON to quickly build up the air pressure when starting the train from cold. When the pressure has built up, move the switch to OFF.

PRESS WINDSCREEN WASH – windscreen washer (inoperative in this simulation).

SANDER – Press and HOLD to dispense sand. Release to stop sanding.

Throttle control



Moving the lever backwards will increase the engine RPM from IDLE to MAX through six intermediate stages.

Brake control



Moving the lever to the rear will release the brakes from EMERGENCY to RELEASE via FULL SERVICE, STEP 2 and STEP 1. The normal position when stopped is FULL SERVICE.

Desk area



AWS alarm acknowledgement button – press to acknowledge the AWS alarm.

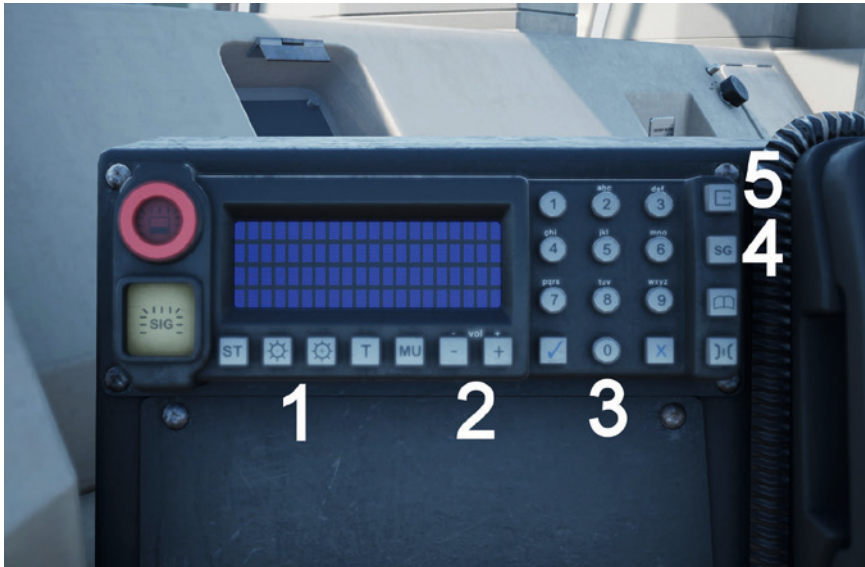
Horn lever – move the lever backwards and forwards to sound the two-tone horn.

GSM-R (Global System for Mobile Communications – Railway)

This is a digital radio system used to provide voice and data communication for railway operations. It assists with safety by connecting drivers and signallers, provides services such as point-to-point and group calls, and is also a component of the European Rail Traffic Management System (ERTMS).

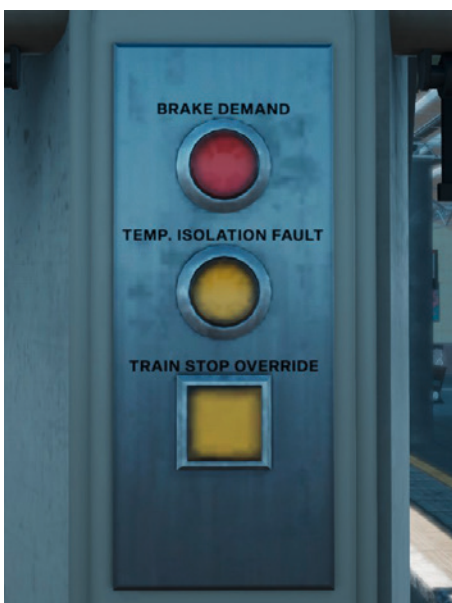
GSM-R operation

On moving the reverser from the OFF position, the GSM-R should automatically start up and register your train. The items below are operational in this simulation:



1. 'Sun' symbol buttons – increase/decrease the brightness of the screen.
2. - /+ buttons – control the audio volume of the unit.
3. Tick (Confirm) button – confirms the action on the screen.
X (Cancel) button – cancels the action on the screen.
4. Contact Signaller (SG) button – this will contact the signaller if you are held at a red signal.
5. Register/De-register button.
Note: Registration – if your train is already registered, the unit will ask you to de-register, by pressing this button and then confirming by pressing the tick button; if unregistered, the unit will register your train.

TPWS (Train Protection and Warning System)

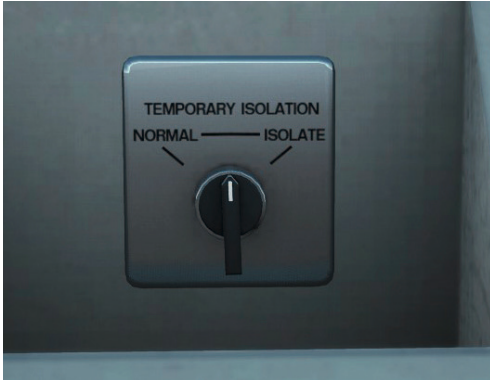


BRAKE DEMAND lamp – illuminates if the safety system activates and indicates that the emergency brakes have been applied.

TEMP. ISOLATION FAULT lamp – non-operational in this simulation.

TRAIN STOP OVERRIDE – when pressed, this will allow the TPWS safety system to be bypassed temporarily whilst it is illuminated.

TPWS isolation



This is controlled by a three-position switch:

NORMAL (left) – this position is for the normal operation of the TPWS.

Central – the default position (it is spring-loaded to this position).

ISOLATE (right) – moving the control to this position will isolate the TPWS system, which will also illuminate the yellow lamp on the central windscreen pillar TPWS panel.

Lights control panel



CAB HEATER – move the switch as required (SLOW/OFF/FAST).

HEATED SCREEN – rotate to ON (no effect in simulation).

SIGNAL BUZZER – press to sound the guard's buzzer.

Left windscreen wiper control – adjust as required (SLOW/OFF/FAST).

CAB LIGHT – set ON/OFF as required.

DESTINATION LIGHT – illuminates the external destination boards (ON/OFF).

INST. PANEL LIGHT – set as required (ON/OFF).

External lights switch – set as required (OFF/TAIL/MARKER/DAY 'D'/NIGHT 'N').

Driver's Reminder Appliance



This system is designed to be a defence against SPADs (Signal Passed At Danger). The driver must activate the system when stopped at a station when an adverse signal is displaying. When the system is activated, as shown by the red light being illuminated, the engine throttle is deactivated and therefore the train cannot be driven. Deactivating the system turns off the red light, the throttle is reconnected, and you can drive the train as normal.

RPM and speedometer



m.r. and b.c. gauge – combined main reservoir and brake cylinder pressure gauge.

Speedometer – miles per hour.

GEARBOX LOCAL warning light – non-operational in this simulation.

ENGINE STOPPED warning light – will illuminate when the engine is not running.

GEARBOX TRAIN warning light – non-operational in this simulation.

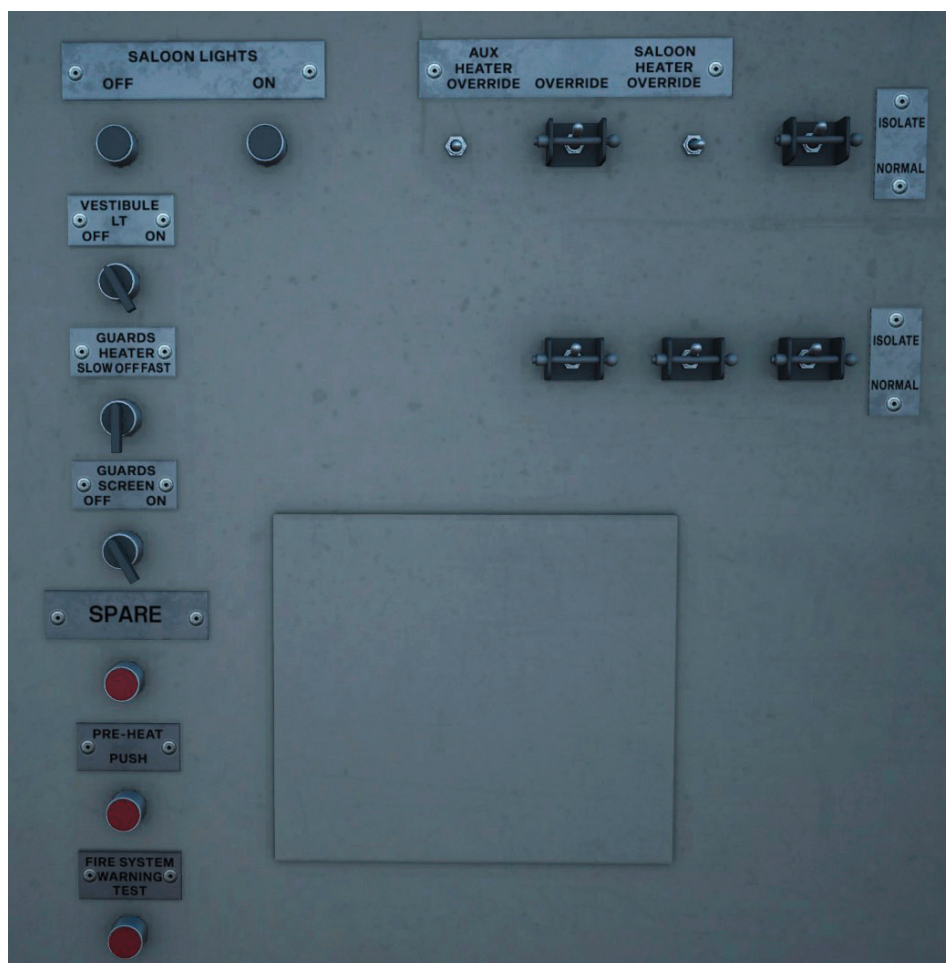
AWS (Automatic Warning System)



AWS isolation handle – open the cover first and then move the handle to operate it.

AWS 'sunflower' indicator.

Rear bulkhead switches



The following switches are operational:

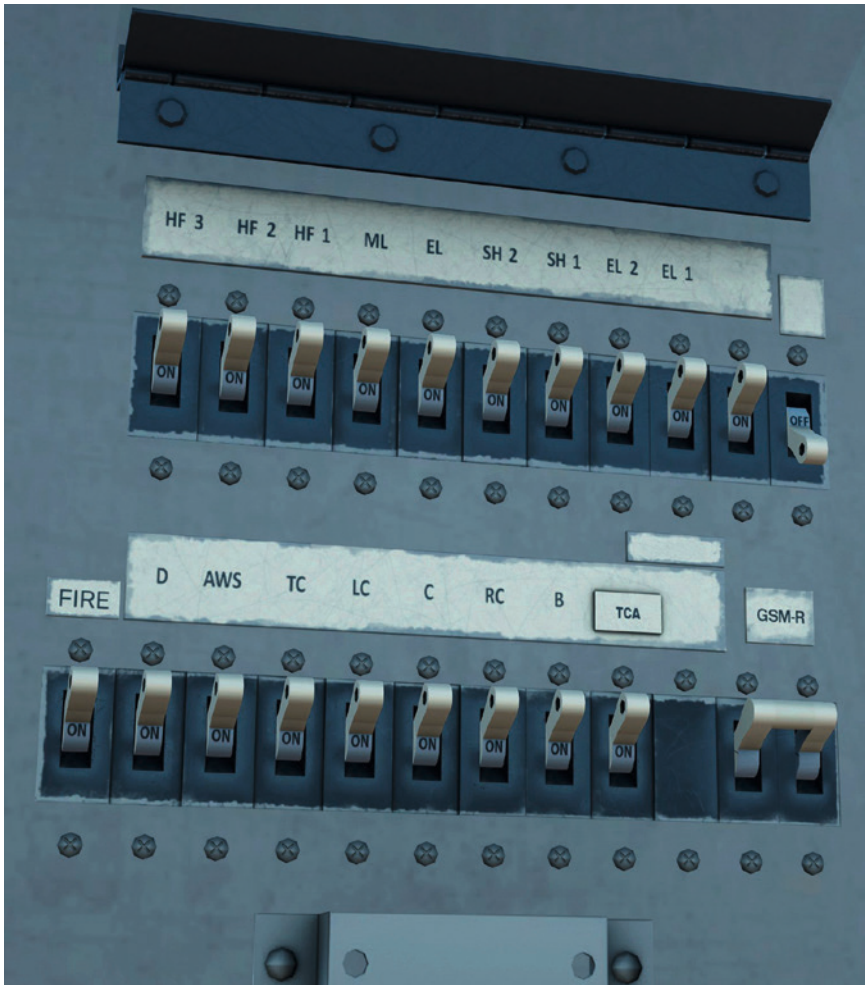
SALOON LIGHTS (ON/OFF)

VESTIBULE LIGHT (ON/OFF)

GUARDS HEATER (SLOW/
OFF/FAST)

GUARDS SCREEN (ON/OFF)

Circuit breaker panel



The following circuit breakers are operational:

ML – saloon main lighting

EL – emergency lights

EL 2 – end lights 2

EL 1 – end lights 1

Auxiliary (unlabelled) – when tripped, the local door control is inoperative.

D – door control. Doors are not operable.

AWS – AWS is disabled.

TC – train control. When tripped, a brake application occurs, engine RPM goes to idle and no coupling operations are possible.

LC – local control. Local control becomes non-operational.

C – communications. Announcements are disabled.

B – brakes. Full brake application when tripped.

TCA – transmission control. Lose power on that end and no speedometer output.

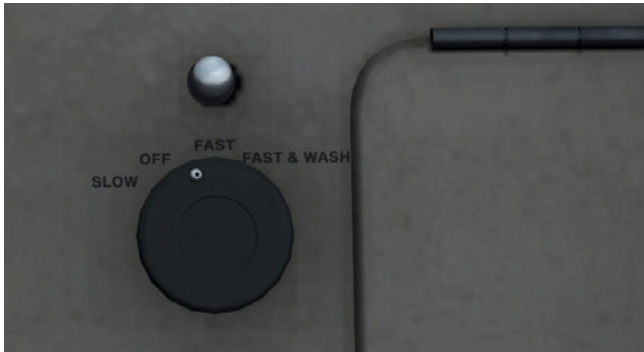
GSMR – disables the GSM-R radio.

The following circuit breakers are animated but have no effect in this simulation:

- HF 3
- HF 2
- HF 1
- SH 2
- SH 1
- FIRE
- RC

The unnamed circuit breaker at the far right of the upper row (set to OFF in the image) is deliberately not animated.

Right-side wiper control



This controls the right-side windscreen wiper (SLOW/OFF/FAST/FAST & WASH).

Destination blind control



Rotate this handle to change the destination names in the exterior panel.

Windows



The driver's side windows on either side can be opened and closed by dragging on them.

Window blinds



The window blinds on the front and on the driver's side can be moved up and down by dragging on them at the central bottom area.

Ventilation fan



Click the toggle switch on the fan to switch it ON/OFF.

ROLLING STOCK

Class 150 and Class 153 in Ex-Arriva Trains Wales liveries

We have supplied three additional liveries for owners of the Dovetail Games Cardiff City Network route: two for the Class 153 and one for the Class 150; both locomotives are included with the Cardiff City Network route.

These are fully driveable but only when used in Service mode. They are not accessible in Free Roam or Livery Designer.





TRAINING MODULE

To help you master the Transport for Wales Class 142, a training module is available to take you through the basics.

To access the training module:

From the Home screen, select TRAINING CENTER. On that screen select TRAINING and then select the Transport for Wales Class 142. You may wish to use the Search feature to help you find your train. Click on your desired train and on the next screen select the appropriate module and then click GET STARTED.

WAYS TO EXPERIENCE THE TFW CLASS 142

There are many ways to experience the Transport for Wales Class 142:

- Scenarios
- Timetable
- Journeys
- Free Roam

Scenarios

Five exciting and varied scenarios are included.

To choose a scenario, select TO THE TRAINS from the Home screen and then CHOOSE A ROUTE. When you are on that screen, select 'Cardiff City Network', then select SCENARIOS and click on the one you wish to drive.



Depot Start

Difficulty: 1

Duration: 1 hour 15 minutes

Train: Class 142 Transport for Wales

Prepare a Class 142 for service before operating the first trip to Coryton and Cardiff Bay.

End of Day

Difficulty: 2

Duration: 50 minutes

Train: Class 142 Ex-Arriva Trains Wales

Operate a late-night service to Penarth and back before shutting down the unit at Canton depot for the night.

Stormy Aftermath

Difficulty: 4

Duration: 40 minutes

Train: Class 142 Transport for Wales

Strong winds and heavy downpours have hit South Wales over the past few days. Operate a route-proving train to check that the lines are safe to run on.

The Long Way Round

Difficulty: 1

Duration: 40 minutes

Train: Class 142 Ex-Arriva Trains Wales

Operate a Radyr to Coryton service, a much longer route by train when compared to walking.

The Taff Traverser

Difficulty: 2

Duration: 1 hour 45 minutes

Train: Class 142 Transport for Wales

The Just Bashers Society have hired a pair of Class 142s to explore some of the Welsh Valleys.

Timetable

We have created a brand-new additional Timetable so you can experience an intense 24-hour period of operations for Cardiff in 2019!

To access the Timetable, select TO THE TRAINS from the Home screen and then CHOOSE A ROUTE. When you are on that screen, select 'Cardiff City Network' and then select TIMETABLE.

Then select 'Cardiff City Network 2019'.

Next, click on the train that you wish to drive and then click on your preferred version on the right side of the screen.

Once you have done this you will see all its available services on the left side of the screen. Click on the one you want to drive, adjust the weather you wish to see and then click GET STARTED to begin.



Journeys

Journeys provide a curated experience for owners wishing to explore the action further. Start a Journey and enjoy timetabled services and scenarios to complete around the route as you drive the Transport for Wales Class 142.

To access Journeys, select TO THE TRAINS from the Home screen and then RAIL JOURNEYS. When you are on that screen, select 'Cardiff City Network' and then click on CHOOSE JOURNEY on the right side of your screen.

Now click on the train you wish to drive, click on one of the available drives on the next screen and then click GET STARTED to begin.

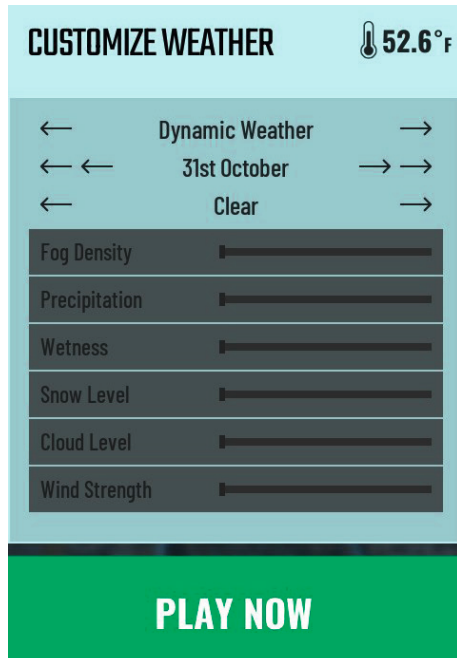


Free Roam

The Free Roam feature allows you to choose a station on the route and drive a train from it, driving as you wish.

To access Free Roam, select TO THE TRAINS from the Home screen and then CHOOSE A ROUTE. When you are on that screen, select 'Cardiff City Network' and then FREE ROAM.

On the next screen choose the station you wish to drive from, select the time you want to start and set the weather that you wish to experience.

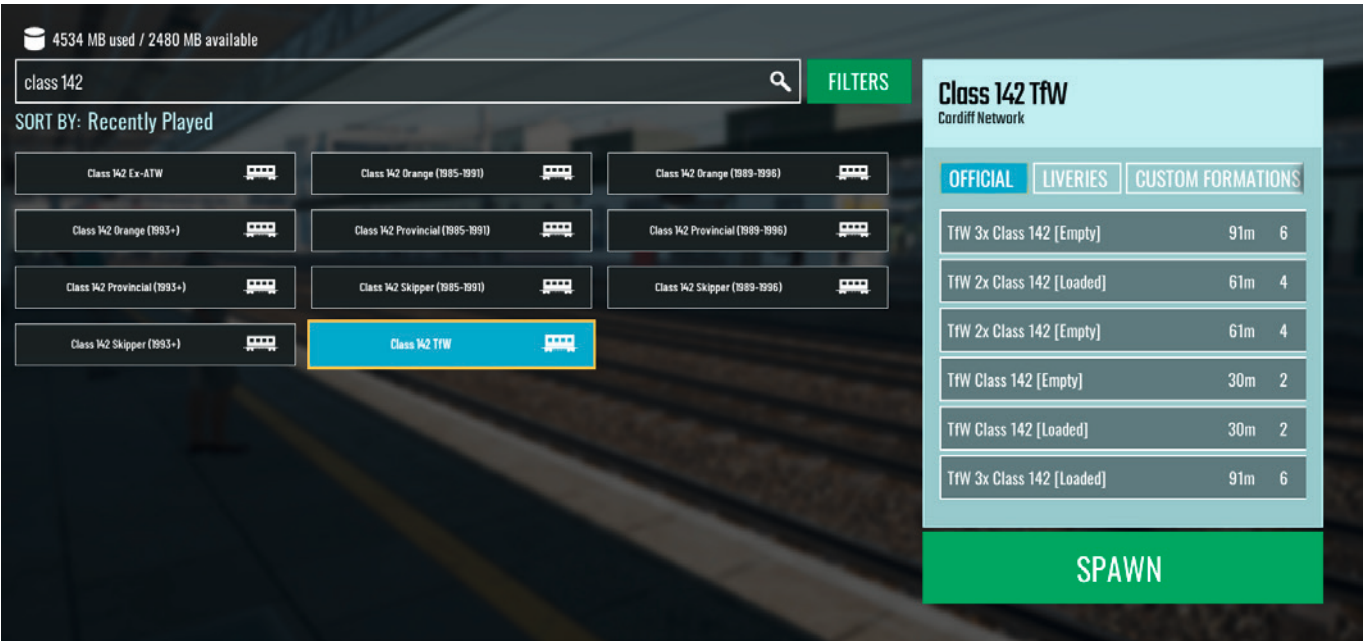


When this is done, click PLAY NOW.

When the station loads, walk to the platform from which you wish to depart and press the [TAB] key on your PC keyboard. This will bring up the TAB / SPAWN NEW TRAIN icon on your screen.



Click on the SPAWN NEW TRAIN icon. This takes you to a screen where you can select your train (you may wish to use the Search box to find it quicker). Select the train, choose the variant on the right side of the screen and then click SPAWN.



This will take you back to the platform, where you will see a SPAWN TRAIN [X] icon. You should see a bright green area on the track, meaning that there is space for the train to fit. If you see a red area on the track, move along the platform until it turns green. When it is green, press the [X] key on your PC keyboard and your train will appear. You are now ready to board it and drive!



ENHANCING YOUR EXPERIENCE

There are further ways to enhance your experience with the Transport for Wales Class 142 Pacer:

Layering

‘Layering’ is using other add-ons that you own to enhance your Transport For Wales Class 142 experience.

If you have any of the add-ons listed below in your Steam library, the Transport for Wales Class 142 Timetable will call on the appropriate locomotives and rolling stock from them to allow you to enjoy a fuller Timetable experience.

Note: These additional add-ons are not required for the Cardiff City Network route to operate; they are optional add-ons which, if you own them, will give you a more authentic experience.

Compatible add-ons as of October 2025

- [West Coast Main Line: Preston – Carlisle](#)
- [BR Class 86/2 & Mk2F Coaches](#)
- [Cardiff City Network: Radur & Coryton – Penarth & Bae Caerdydd Route Add-On](#)
- [Cargo Line Vol 1 - Petroleum](#)
- [Cargo Line Vol 3 - Intermodal](#)
- [BR Class 170 ‘Turbostar’ DMU Add-On](#)
- [CrossCountry BR Class 220 Voyager DEMU Add-On](#)
- [Great Western Express Route Add-On](#)
- [Rail Head Treatment Train Add-On](#)
- [Riviera Line: Exeter - Plymouth & Paignton Route Add-On](#)
- [Tees Valley Line: Darlington – Saltburn-by-the-Sea Route Add-On](#)

Livery Designer

The Transport for Wales Class 142 is compatible with Livery Designer so that you can create your own liveries.

To access Livery Designer from the Home screen, click CREATORS CLUB and then LIVERY DESIGNER.



CREDITS

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More Just Trains add-ons for Train Sim World 6



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