Class 52 'Western Diesel Hydraulic' History

Whether they were called the 1 000's (from their cab side number plates) or 'Westerns'
(from their nameplates bearing the first Word 'Western' of 2 words on each plate) the Class 52 was a firm favourite amongst railway enthusiasts almost from their introduction starting in 1961 to their withdrawal from service in 1977, and subsequently again with the return to the national network with D1015.

Designed by Sir Misha Black QBE KBE the Class 52's good looks and range of liveries brightened up the post steam period immensely.

Equally at home on Express passenger trains, or on mixed freight trains all 74 locomotives built put in sterling service.
Built by 2 locomotive works (Swindon D1000-D1034 and Crewe D1035-D1073) there were very few real detail differences between the 2 runs of construction.

Liveries carried by the class included Desert Sand, Golden Ochre, BR Green, BR Coach Maroon, BR Loco Maroon, Chromatic Blue and BR Blue with further variances in yellow warning panels and buffer beam colours.

Dapol's locomotive was designed using the latest technology, however even this clever technique was not quite good enough to capture every nuance in Misha Black's design. For the first time (as far as we know) we enlisted the modelling fraternity on www.rmweb.com and thanks to their input (A heartfelt thank you guys) we were able to refine the model to the standard you see here today.

Locomotive Specifications

Twin Brass flywheels
5 pole skew wound motor
See through spoked driving wheels
NEM coupler pockets
Custom fitted removable valances
Directional lighting
21 pin decoder socket
Provision for large sound speaker
Internal cab lighting
Accessory bag
Etched roof fan grille and catwalk
Sprung buffers
Self adhesive headcode markings
Fitted etched depot plaque (where applicable)
Separately fitted wire handrails, windscreen wipers and lamp brackets
Etched nameplates and numbers for customer fitting (where applicable)

This scale model of a British Rail Class 52 locomotive has been 3 years in the designing and manufacture and we hope it will bring you many years of pleasure

Maintenance

Please remember that your locomotive will need occasional servicing, such as lubrication or wheel cleaning, and a healthy track cleaning regimen will also pay dividends.

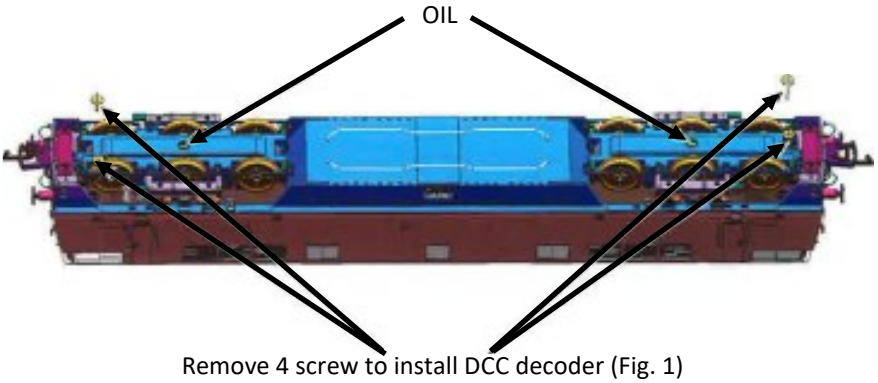
Please pay particular attention to the backs of the wheels and ensure any dust or fluff there is removed as it will build up and eventually impede running performance.

Lubrication

Failure to oil as recommended may affect any warranty claims. Please apply oil with great caution as excessive oiling will damage the mechanism and some oils can damage the plastic. If oil touches the bodyshell, wipe it off with a non-fluffy cloth immediately.

No part of the motor requires lubrication.

DO NOT operate the mode! on track laid onto carpet as dust and fibres will impair the mechanism.

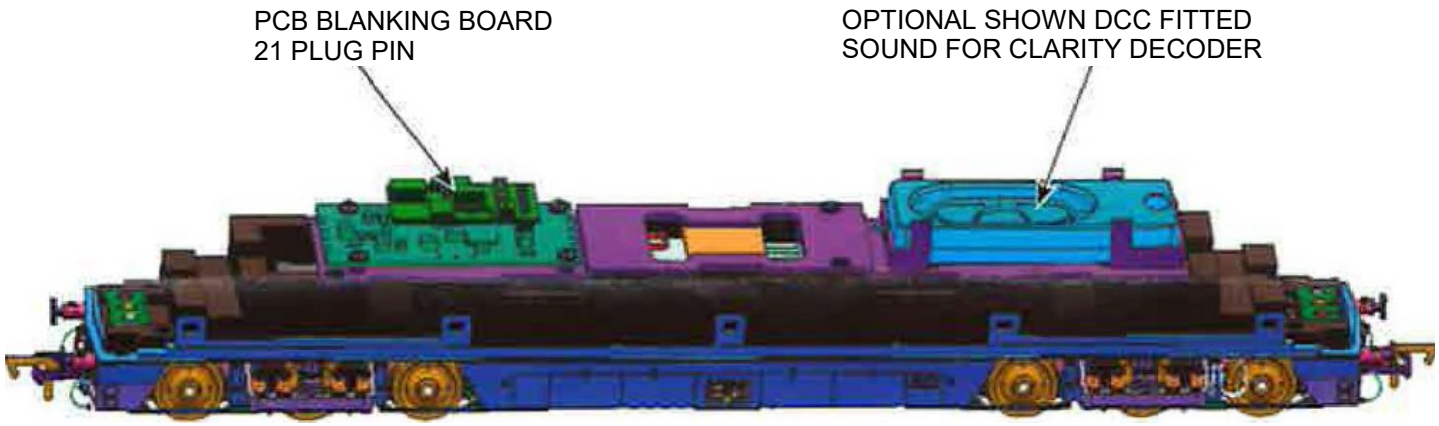


DCC

Please note that if you intend to run this locomotive on DCC control equipment we recommend (as we do for DCC operation) that the engine is run for approximately 30 minutes in each direction on DC operated track and not on DCC power using the '00' setting some controllers have as this setting will damage the motor and electronics invalidating the warranty.

Any 21 pin decoder should fit, but please check with your stockist to confirm this. An 8 pin decoder will also fit providing you purchase a 21-8 pin converter.

If you wish to fit sound to your model then this has been specifically designed to use the 4 ohm sound decoder (such as the locsound4) and speaker with fixed/sealed enclosure that is available from DCC supplies www.dccsupplies.com (product code 995200038). Please remember to use a sound decoder with matching impedance to the speaker or damage to the decoder might ensue.



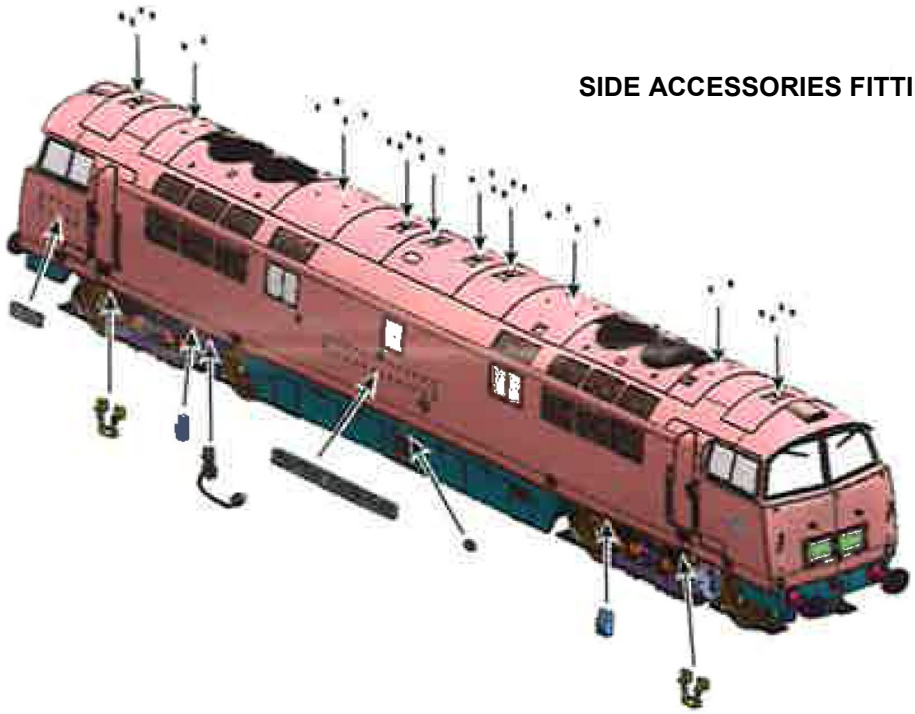
To fit a DCC decoder (please remember that your model will work normally on DC straight from the box upon purchase), please refer to the simple picture graphic within the pages of these instructions showing the DC (normal operation) blanking plug that needs to be exchanged for the DCC 21 pin decoder of your choice. The location of the simple clip in speaker is also shown for clarity.

To gain access to the inside of the locomotive for DCC installation please remove the four screws from the chassis. (see Fig. 1)

Once these are removed the body can be carefully removed by inserting a small flat object just as a flat headed screwdriver between the chassis and the body. This will loosen the body enough to gently pull the body up and off the chassis. Care must be taken not to damage the body paint work and wiring inside through rough handling during this process.

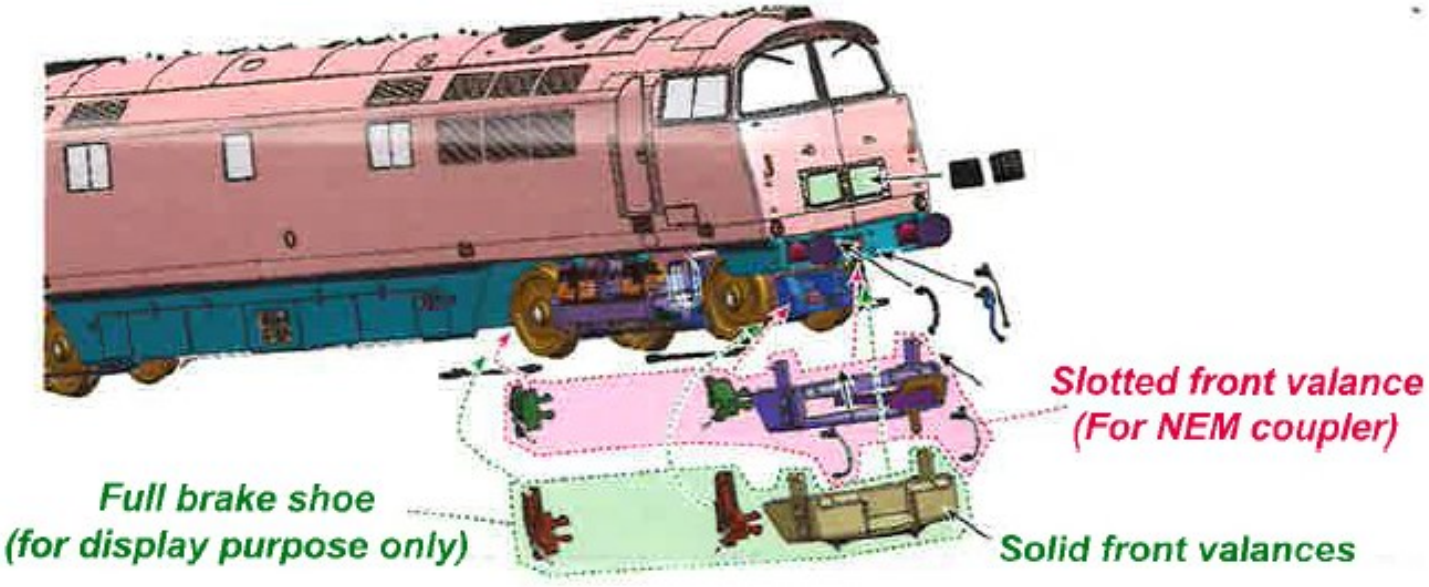
Accessories and Optional Front Valances

The locomotive comes with customer fitted accessories and front valances. (Please note that after fitting the side accessories the model will be restricted and may not run on tighter radius curves of track.)



SIDE ACCESSORIES FITTING (NOTE DIRECTION OF LOCO)

As you can see from the picture below the fitting of the front air pipes from the accessory bag is straightforward. If required, you can easily remove the standard coupling by unplugging it from its NEM coupling mount, and either changing it for another coupler type or fit the air pipes etc to the front beam buffer. Model is pre-fitted with Half brake shoes. Once changed to "full brake shoes" (included in the accessories bag), model can be only used for display purpose.



Your locomotive comes with a standard Dapol 12 months warranty (this does not affect your statutory rights) and as such any defect found within this period will result in a repair or replacement.

In the unlikely event of this happening please return your model to the place of purchase complete with receipt for them to forward to Dapol. Please do not forward to Dapol directly as this may affect your statutory rights.

EUROPEAN REGULATIONS: Dapol products conform to WEEE and RoHS requirements. If you have a need to dispose of any electrical part, please do so correctly.

Thank you for purchasing the Class 52 'Western' with sound**.**

The sound project contains some unique features designed to enhance the driving experience and increase the authenticity.

There are a number of sounds that occur when a function button is pressed, and a number of sounds that are played automatically. These are detailed on the following pages.

We hope you enjoy the added realism and enhanced driving experience that this will bring to your layout operations. To get the best realism and satisfaction out of your sound decoder, you will need to practice a little bit of driving!

Dapol factory-fitted sound

The DCC address is set to 3.

Some notes about sound functions:

1. Some sounds are always active (e.g. door slams, horns flange squeal). Others are enabled when F1 is ON (e.g. engine sounds). The active sounds can be played by pressing the appropriate function button

2. Some sounds operate automatically. These sounds will only be heard when certain prototypical conditions are met (e.g. brake squeal when braking to a stop).

The 'RealDrive' Experience

The driving experience can be enhanced by activating **'RealDrive'.** This changes the set up of the driving characteristics, such that you will need to apply the brake in order to bring the locomotive to a controlled stop – simply closing the throttle will not suffice!

Explanation of 'RealDrive': In this mode, you feel you really are driving the engine; assuming the locomotive (train) is travelling at a medium speed as the regulator is closed (speed step 0) the locomotive will continue to coast for some considerable distance, slowing gradually. Applying the brake using F7 will bring the model to a stop. The braking speed can be adjusted by changing CVs as below.

- When F7 is ON the brake is ON. When F7 is OFF, the brake is OFF.
- The braking intensity can be altered via CV349. Some users prefer sharper brakes, which allows several short applications to bring the locomotive to a controlled stop (if possible set F7 on your DCC system to 'momentary' operation). Other users may prefer a gentle

brake (use a higher value in CV349) so that only a single application of the brake is needed to bring the locomotive to a halt. CV 349 factory setting is 30.

- **Note:** If the brake is left ON, the locomotive will not accelerate. This means that if it is stationary and the brake is ON when the regulator is opened, the locomotive will not move.
- **Note:** The brake will not 'win' over the regulator. This means that if the brake is applied whilst the regulator is open it will continue to run at the current speed.

To activate 'RealDrive' set CV4 to 254, and CV309 to 7.

To de-activate 'RealDrive' set CV4 to 40, and CV309 to 0. These are the factory settings

Function key summary:-

F0: White marker lights (directional)
F1: Startup/shutdown
F2: Two-tone horns
F3: Two-tone horns
F4: Passenger door slams
F5: Guard's whistle
F6: Single tone horn
F7: Brake application/release
F8: Flange squeal
F9: Light engine mode (reduced inertia)
F10: Red tail lights (directional)
F11: Cab lights (directional)
F12: All sounds fade out/in
F13: Coupling/uncoupling
F14: Cab door closing
F15: Parking lights (red tail lights at both ends simultaneously)
F16: Two-tone horns
F17: Two-tone horns
F18: Air release

Sound and lighting modes

F0: White marker lights
When F0 is turned on, the white marker lights at the 'forward' end will be illuminated according to the direction currently selected.

F1: Startup/shutdown
On pressing F1 (F1 ON), with the speed set at 0, the sound of the engines starting will be heard. On pressing F1 again (F1 OFF) with the speed set at 0, the sound of the engines shutting down will be heard.

Alternatively, the startup sequence can be by-passed by turning F1 on *whilst the loco is moving*. The engine sound will come on at a notch appropriate to the current speed. Similarly, if F1 is turned off *whilst the loco is moving*, the engine sound will simply cut off.
Driving technique: The engine sounds work best if the throttle is opened directly to the desired speed and left there. The inertia will control the movement of the Locomotive in a realistic manner and the engine/transmission will be heard to go up through the notches as per the prototype. For deceleration, the best results are obtained with 'RealDrive' enabled as this allows the throttle to be closed fully and the Locomotive then being brought to a halt using the working brake (F7). In this way, the engine is heard to spool down to idling which simulates prototypically the behaviour of the locomotive coasting.

F2: Two-tone horns
On pressing F2, short high/low horns will be heard.

F3: Two-tone horns
On pressing F3, short low/high horns will be heard.

F4: Passenger door slams
On pressing F4, the sound of the coach doors closing will be heard. If F4 is left ON, more door slams will be heard. To reduce the number of door slams, turn F4 OFF when the required number of door slams has been heard. Note that, depending on the direction of travel currently selected, the door sounds will differ slightly to add variety. Remember to turn off the function when you have used it, otherwise the door sounds will be heard when changing the direction of travel.

F5: Guard's whistle
On pressing F5, the sound of the Guard's whistle will be heard.

F6: Single tone horn
On pressing F6, a medium low horn will be heard

F7: Brake application/release
When F7 is pressed, the sound of the brakes being applied will be heard. When F7 is pressed again (F7 turned off), the sound of the brakes being released will be heard.
Note that if 'RealDrive' is enabled, the working brake will also be applied (F7 ON) and also released (F7 OFF)

F8: Flange squeal
On pressing F8, the sound of the wheel flanges squealing will be heard. The sound will play for 26 seconds, or F8 can be switched off in order to stop the sound playing.

F9: Light engine mode
With F9 ON, the inertia will be reduced to simulate a lightly loaded engine or train.

F10: Red tail lights
When F10 is turned on, the red tail light at the ‘reverse’ end will be illuminated according to the direction currently selected.

F11: Cab lights (directional)
When F11 is on, the leading driver's cab light will be illuminated according to the currently selected direction.

F12: All sounds fade out/in
When F12 is pressed (F12 ON), all sounds will slowly fade to silence. This can be used when the Locomotive is going 'off-scene' or into a tunnel to simulate the locomotive going out of earshot. When F12 is pressed again (F12 OFF), all sounds will slowly fade back in to their previous volumes. This can be used when the Locomotive is coming 'on-scene' or out of a tunnel to simulate the locomotive coming into earshot.

F13: Coupling up/uncoupling
On pressing F13, the sound of the coupling being placed on the hook will be heard.
On pressing F13 again (F13 OFF), the sound of uncoupling will be heard.

F14: Cab door slam
On pressing F14, the sound of the cab door being slammed will be heard.

F15: Parking lights
When F15 is turned on, the red tail lights both at the ‘forward’ and at the ‘reverse’ end of the locomotive will be will be illuminated simultaneously regardless of the direction of travel currently selected.

F16: Two-tone horns
On pressing F16, short high/low horns will be heard.

F17: Two-tone horns
On pressing F17, short low/high horns will be heard.

F18: Air release
On pressing F18, the sound of the air being released will be heard.

Automatic functions

Brake squeal: The brake squeal will be played when the speed of the locomotive drops below the threshold AND the locomotive is decelerating. **Note that if 'RealDrive' is enabled, the brake squeal will only be played when the speed of the locomotive drops below the threshold AND the locomotive is decelerating AND the brake is ON (F7 ON).**

Other useful CVs

CV3 Acceleration rate ('heavy' engine (F9 OFF): As supplied this is set to a value of 120. This can be adjusted to give the required amount of inertia; a higher value will give slower acceleration whilst a lower value gives more rapid acceleration
CV4 Deceleration rate ('heavy' engine (F9 OFF): As supplied this is set to a value of 40. This can be adjusted to give the required amount of inertia; a higher value gives a slower deceleration. A lower value gives more rapid acceleration. **Note for 'RealDrive' this should be set to a value of 254.**
CV390 ‘Light engine’ inertia reduction: This specifies the amount of inertiathat is applied when the ‘light engine’ mode is ON (F9 ON). As supplied this is set to a value of 85. This can be adjusted to give the required amount of ‘light engine inertia; a higher value will give slower acceleration and deceleration whilst a lower value gives more rapid acceleration and deceleration.
CV266 Overall volume: As supplied, this is set to a value of 64. A higher value will increase the volume whilst a lower value will decrease the volume. The recommended maximum is around 100.