New and improved DCC sound features incorporated into the SLW Class 24 model

(October 2019 – V19.10 BR Green Cat Nos. 2407 & 2408)

Enhanced Sound Features

We have worked hard to improve our sound project for these new versions of the Class 24 and have changed the way in which some sounds work, or are triggered, in order to enhance the full, authentic, audio experience. The opportunity has also been taken to simplify and automate some actions to make operation easier, as well as taking into account several special requests. *A sound chip 're-blow' service for customers of previous Class 24s is available for just £10 inclusive of return postage. Call for details.*

Locomotive Brake: Air release sound (straight/direct air loco brake) plays a few seconds after the locomotive comes to a halt. This is fully automatic and requires no operator intervention.

Warning Horns: New to this version, there are 12 different warning horn sounds which are selected automatically by the decoder depending on speed and direction. These have been included to more closely follow typical practice – short 'toots' to warn of intended loco movement and long blasts when travelling at high speed. These are still controlled by **F-Key 3** and **F-Key 4** but a short 'acknowledgement' version of each will play when the model is stationary. For added variety, different sounds will play if the model's intended direction is changed.

- *When moving at speed steps between 1 and 50:* Different and longer sounds will be played.
- *When travelling at over 50 speed steps:* Long duration sounds are played.

Each F-Key must be released or disengaged before any further horn sound can be selected.

Flange Squeal: Enabled with **F-Key 9**
If the key is <u>not engaged</u>, the flange sound will not play under any circumstances.
If the key is <u>engaged</u>, sounds will operate in the following automated manner:

- *Loco is stationary, or comes to a halt:* The wheels are not turning and so there would be no flange squeal in reality. No flange sound will play in your model.
- *Loco is moving slowly*: A slow speed flange squeal, with creaking sleepers, will play.
- *Loco is moving more quickly:* A faster speed, high-pitched flange squeal will play.

Wagons Snatching & Buffering: Enabled with **F-Key 18**
If the key is <u>not engaged</u>, the snatching and buffering sounds will not play under any circumstances.
If the key is <u>engaged</u>, and the Light Engine Mode (F-Key 5) is also <u>engaged</u>, the sounds will not play under any circumstances. *(No wagons are expected to be coupled to the loco in Light Engine Mode).*

If the key is <u>engaged</u>, and the Light Engine Mode (F-Key 5) is <u>not engaged</u>, sounds will operate in the following automated manner:

- *Loco is stationary:* The sounds are not played.
- *Loco moves off/accelerates gently:* The sounds are not played.
- *Loco moves off/accelerates more rapidly:* The sound of the couplings taking up slack as the train stretches out plays. This is also the case if the loco accelerates further when already moving.
- *Loco decelerates gently:* The sounds are not played.
- *Loco decelerates more rapidly:* The sound of several wagons buffering up is played each time.
- *Loco comes to a halt with the Brake Key (F-Key 2) engaged:* The sound of several wagons buffering-up is played after it comes to a halt.

Please turn over – more overleaf

Speed Lock: Enabled with **F-Key 22**

This feature allows the track speed to be 'locked' whilst the throttle control is used to control the engine power sounds playing. Accurately simulating the sound of a heavy train slowly climbing a gradient with engine at full power is as easy as depicting it coasting down a gradient with the engine at Idle with this single new feature. Here's how it works…

Engage the Speed Lock to fix the model's track speed temporarily. The throttle now directly controls the engine sounds only. Increase speed steps to apply more power, decrease speed steps to spool the engine down to lower power bands or to idle.

Disengage the Speed Lock Key when you wish to return control of the model's speed to the throttle. Careful use of this feature is advised. Our existing 'notching' power bands (F-Keys 23, 24, 25, 26) offer equally good control of sounds without the potentially risky loss of direct throttle-speed control but may require more button presses.

Cab Vocals: Played by **F-Key 16**

To give some variety, there are four different recordings in this category, each with their own identity (Sound Sample ID). Only one example can be accessed at any one time. Using the SSID as the value in CV588 will assign that sound to F-Key 16. Your selection can be changed at any time – including when the model is running – by using Programming on the Main (POM). The phrases used have been especially themed for this Derby (Railway Technical Centre)-based Research Department locomotive. They are as follows, with ID 60 as the 'out of the box' default:

- ID 60: *"Can we look in the cab, driver?" "Not a chance son… More than my job's worth!"*
- ID 20: *"Get her warmed up. As soon as that stock is in Platform 3 we'll get the route across and hook on the back." "This one's going back empty, straight to the carriage sidings."*
- ID 45: *"Go and close the crossing gates and then jump in the van as I roll up to the peg... And don't forget to collect our brew from the 'box before we get the road." "OK mate."*
- ID 61: *"Don't just sit on your arse reading the paper! Start a brew while I prep the loco."*

Enhanced Lighting Features

Tail Lamps: Tail lamps (red light showing to rear) should be illuminated if the locomotive is running on its own (described as light engine), since railway rules require the red to be showing only on the rear-most vehicle. This is a safety regulation, enforced by signalmen, to ensure that a train has not split. A formation running without 'red showing to rear' will be brought to an immediately halt. Equally, red showing on a loco which *is* hauling a train is against the rules. Therefore, by default, the model runs with tail lamps off (as it will primarily will be used to head a train). By selecting the *Light Engine Mode/* **F-Key 5**, tail lamps will correctly illuminate automatically to the rear (along with more responsive acceleration/deceleration and higher engine power thresholds).

Note: *The Class 24 tail lights as supplied are both illuminated. In reality, only one lens should be lit (via a center-off switch in the cab). If we supplied the model with only one lens lit, we are sure it would have triggered suspicions of a lighting fault. Customers may disable one of the red LEDs by removal, painting-over, or shielding on the cab PCB.*

Cab Interior Lighting (auto-illumination): Over-ridden by **F-Key 20**

Customers with basic DCC command stations previously found it difficult to access the interior lighting. This project sees the leading cab interior light illuminate automatically when the locomotive comes to a halt. It will extinguish when moving off again. Like a motor car, driving with interior lighting switched on is not normal practice since it reduces outside visibility and causes distracting reflections.

Should you wish to disable the feature (for instance, whilst portraying a working in daylight) then engaging F-Key 20 will result in the interior lighting being underlined disabled in all circumstances. *The feature is designed to be 'on' by default since it is useful even in daytime scenarios when the loco may be stabled in a dark locomotive shed or other building, under a bridge or partly inside a tunnel.*