

SWD LS V4 Steam Sound Set up Info Sheet

(Amended by Steve Weeks 18/11/12)

Synchronising the steam chuff

To synchronise the steam chuff with the wheel revolutions, you may use an external cam as described in LokSound V4 Manual downloadable from our web site: www.southwestdigital.co.uk however, most users prefer to use the automatic exhaust mode within the LokSound V4.0 decoder.

To enable this function (and disable any external cam at the same time), CV 57 and CV 58 are used. It pays to spend some time in order to achieve the optimal result. Please make sure that your DCC system is set to 128 speed steps and the load control is perfectly adjusted to your loco, (CV's 51-55) and that the Min / Max speed has been set with CV's 2, 6 and 5. Good electrical contact with clean track, wheels and pick-ups is essential for the setup of this decoder. After doing so, you can start to synchronise the steam chuffs.

Setting up CV 57 (Range 1 – 255)

In CV 57, the distance between two steam chuffs at the lowest possible speed (speed step 1) is defined.

Note: We recommend using rolling road along with POM (programming On the Main) if your DCC System allows in order to observe the result immediately without removal of the locomotive to a separate programming track.

Proceed as follows:

1. Select the correct address for the locomotive, (Default 3).
2. Switch the sound on with F1.
3. Put the engine onto the track or rolling road and drive it at speed step 1.
4. Observe the locomotive thoroughly and check for the correct number of steam chuffs per revolution. 4 chuffs (2 or 4-cylinders) and 6 chuffs (3 cylinders). If needed, re-adjust the value in CV 57 gradually by increasing or decreasing the value until you are satisfied.

Note: The visual starting position may wonder over two or three revolutions, but the correct number of chuffs will still be played.

Setting up CV 58 (Range 1 – 255)

In CV 58, you need to give the decoder more information about the gearing of your Locomotive.

Proceed as follows:

1. Increase the speed of your locomotive between speed steps 12-16.
2. Try to observe if, you still have the correct number of chuffs per revolution.
3. Should you find that there are too many, increase the value, if there are not enough, reduce the value in CV 58 gradually until you are satisfied.

Setting up CV 249

Small driving wheel diameters are likely to make the steam chuffs sound very good at low and medium speeds, however during high speed it sounds strangely distorted and ticked off. This has often to do with an excessive speed that isn't prototypical at all. The minimum distance, which two steam chuffs need to have, can be set with the help of CV 249 to reach a satisfactory high speed sound. A unit of 1 ms or 0.1 Sec allows for a quite exact adjustment.

If you are not satisfied with the sound at high speed, you should increase the value in CV 249 gradually while the sound is switched on and the locomotive is at the correct top speed until the sound is more natural, since the steam chuffs are set further apart.