

# Fitting sound to the Bachmann 08

By Jim Smith-Wright. This article first appeared in Model Railway Journal - issue 166

When I first got into DCC I remember thinking, "its great but I refuse to get drawn in by the gimmicky side of it all". Then one loco came along with lights. It was great to be able to turn them on and off at will and more importantly stop the train and the lights stay on. Its a simple circuit to have carriage lights powered by the track, flashing tail lamps too. Then along came sound at a Hefty £110 per decoder. "No way am I getting into that!"

A friend fitted a Loksound decoder from south west digital to his class 24. It sounded great and I was tempted. So a similar decoder was brought for a Bachmann class 37. Just to see - you understand? So now I had a 37 with independently controlled lights and sound. Its a great little toy. The sound is petty good in a normal household environment but it can't stand up to an exhibition environment surely?

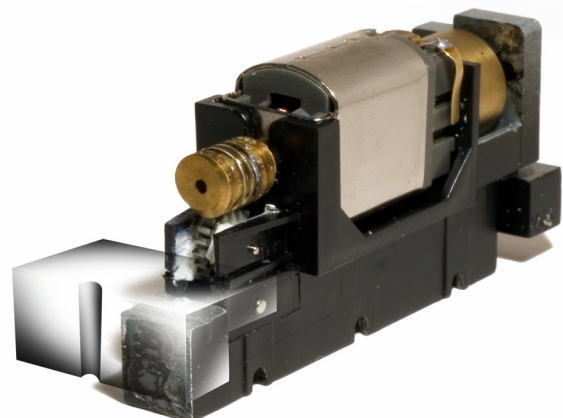
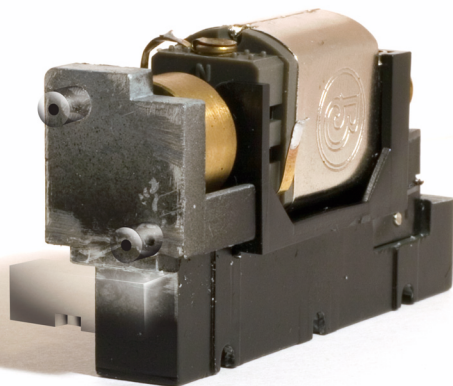
We were invited to Scaleforum 2005 with Amlwch and the class 24 and 37 came with us. The reaction of the visitors was, no other word for it, startling. The sound wasn't lost at all in fact one person came over saying he could hear a class 24 from the next isle. People stood for ages listening to the sound equipped locos. A great many returned later with a brace of friends in tow. We noticed a new characteristic which we



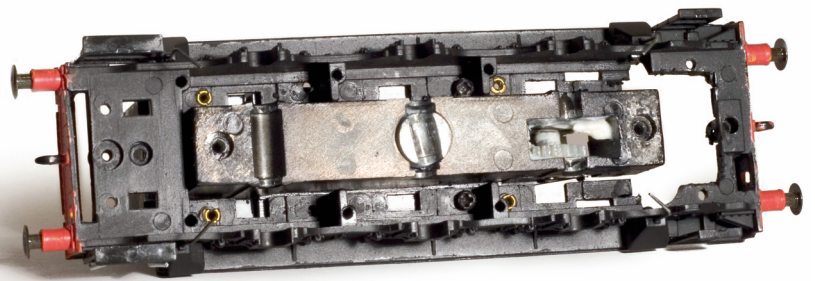
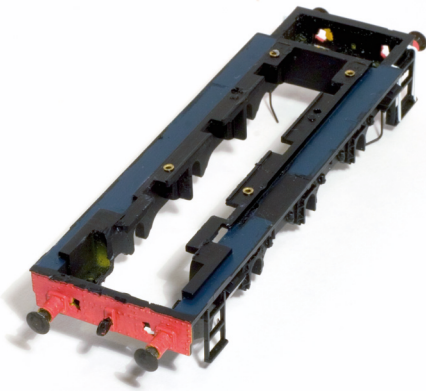
christened the Amlwch head turn. On a train entering the layout people turned their ears towards the locomotive. Often to look up with a look of disappointment if said loco didn't have sound. It emerged that its not the quality of the sound that is important but the fact it is synchronised to the movement of the locomotive and its source is the same. This also yields another interesting side effect. It makes operation easier.

How can this be? Simple really, you tell the loco to move and it doesn't! it has to wait while the brakes come off

and the idle speed picks up. It dramatically reduces the amount of shunting you can do in a given time but the loco is still "performing" People will happily wait while it cycles through the sound before moving off and a smile always seems to come to their faces upon stopping when the brakes squeal. Plus you have the final trick of full start up and shut down procedure. This seems to get the biggest grins. Its great to have a locomotive burst into life when a punter isn't expecting it. As you can tell - I was hooked.



**Modifications to the Bachmann chassis block. The ghosted areas showing the material to be removed. The nose end is shown to the left and the cab end to the right.**

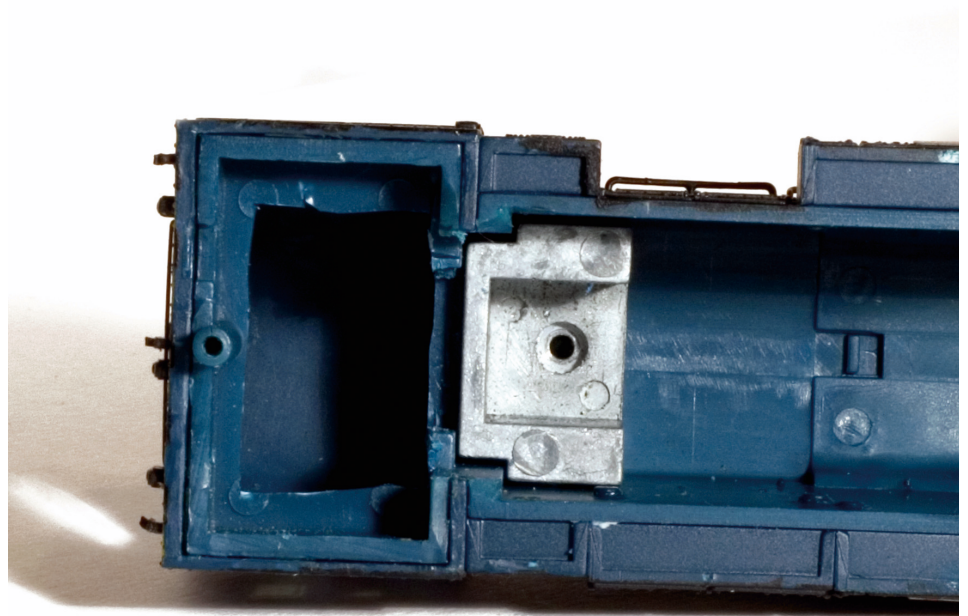


**Modifications to the footplate. The original method of securing the footplate to the chassis are now gone and a new arrangement needs to be made. You can see the new securing screws in the right picture.**

Given Modern RTR diesel chassis there is not a lot of room for the speaker (or speakers) but there is enough. However when SWD announced a class 08 decoder I was intrigued. I asked for not only the standard speaker but also the smaller 19mm speaker as I was unsure how it was going to fit. In the end I used the 19mm speaker and the other one was returned to SWD.

The 08 (a Bachmann version) was dismantled into its component parts and it was obvious that surgery was required. Beginning with the metal chassis block the two "platforms" at either end had to go. The nose end to make room for the decoder the cab end to make room for the speaker. At the nose end there are also two prongs to which the circuit board is mounted. These need to go as well. The motor was carefully wrapped and sealed into a plastic bag to keep swarf out and the chassis was suitably adapted with a hacksaw. The footplate had a hole cut into it to allow the speaker to sit inside. This surgery does mean that the factory fitting between the two parts are destroyed so two holes were drilled through the foot-plate and into the plastic motor mounting cradle. Two of the original mounting screws can be used to secure the 2 parts together.

Moving on to the body. The decoder is quite long and needs all the available space in the nose. the moulded box that forms the exhaust port needs to be trimmed down from the inside to give clearance. At the can end a hole was cut into the cab



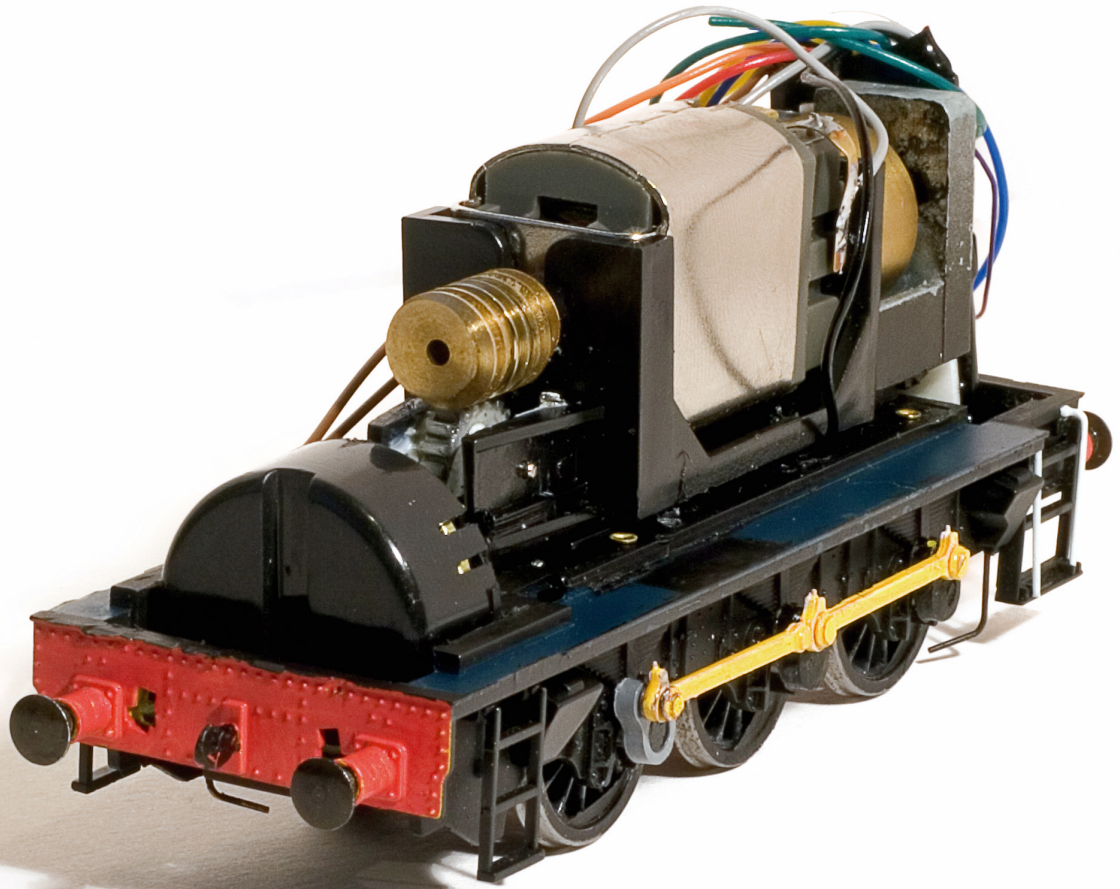
#### **Modifications required to the bodyshell.**

floor to give room for the speaker. The speaker was mounted as shown in the picture making sure the slot in its sound box was vertical to clear the body mounting screw at the rear of the cab. The locomotive was reassembled and test run. Job Done!

Fine-scale modellers seem to fall into two general categories, The Engineering types and the artistic types. As those who know me and indeed read my brake pipes article I am no engineer and rely heavily on trial and error. In this case a refinement i made (when transplanting the decoder and speaker into a different 08 was in the

mounting of the speaker. For some reason it didn't go together as well the second time and the speaker vibrated against the body - not a nice sound at all. I decided to abandon the speakers sound box and use the shunters cab as a sound box instead. The speaker was mounted to the underside of the cab floor pointing downwards. You will need to cut a small notch into the screw pillar for it to fit properly. As it turns out this is a hell of a lot simpler and gives a slightly louder result. The shunter was finished with Ultrascaple wheels, Brassmasters coupling rods and the usual bits and bobs that goes into detailing.





**This is the original arrangement I came up with, subsequent experience has shown there to be a better/easier way of mounting the speaker as shown below. This method dispenses with the speakers sound box and relies on the locomotives cab to perform much the same function.**

