

MODERN SIMPLICITY

The latest locomotives from Bachmann are being designed to make upgrading to sound as simple as possible. **MIKE WILD** shows the process with the new Johnson '1P' 0-4-4T for 'OO' gauge.

NOT THAT LONG AGO, adding digital sound to a small tank engine would be fraught with difficulties. You would be hunting for space to fit the speaker, making compromises and scratching your head, but with forethought from the manufacturer the latest generation locomotives like this Midland '1P' make sound upgrades a process which takes minutes.

The recent 'J72' 0-6-0T (HM149) and '94XX' 0-6-0PT (HM163) from Bachmann also feature a Next18 decoder socket as well as a factory fitted speaker, just like the '1P' which we are illustrating here. This means the process is now as simple as removing the body, taking out a decoder socket blank and inserting a sound chip. You can also employ the same outlook to the latest 'N' gauge steam and diesel locomotives which Bachmann's Graham Farish brand is now equipping with factory fitted speakers and Next18 decoder sockets.

The factory fitted speaker is great in the

'OO' gauge tank engines and the 15mm x 11mm cube type also works well for recreating steam locomotive sound. All you need to carry out the work is a small crosshead modeller's screwdriver, a suitable sound decoder and five minutes of your time.

First, you need to locate the body fixing screws which are outlined in the instructions with all the latest Bachmann locomotives. Undo them, keep them safe, lift off the body, unclip the decoder socket blank and replace it with the sound chip before refitting the body. It's literally 'plug and play' sound.

Moreover, the Next18 is a very neat interface

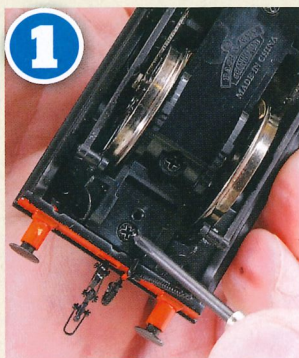
Bachmann's new Johnson '1P' 0-4-4T for 'OO' is one of its latest generation steam locomotives with a Next18 decoder socket fitted. This makes sound a simple 'plug and play' upgrade.



STEP BY STEP INSTALLING SOUND IN THE BACHMANN '1P' 0-4-4T FOR 'OO'

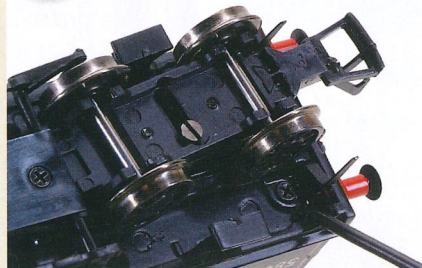


1



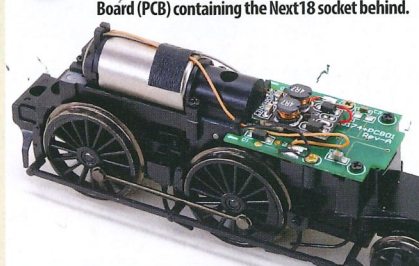
The process starts by turning the locomotive upside down to find the body fixing screws. The front screw is located above the front coupling mount which we had already removed from this model.

2



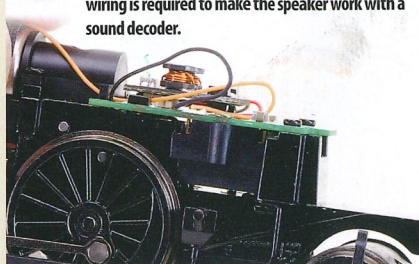
At the rear are two screws, one either side of the bogie, which hold the body in place. Undo these and put safely to one side.

3



The body of the '1P' simply lifts straight up from the chassis to reveal its internal workings. The motor is at the front with the Printed Circuit Board (PCB) containing the Next18 socket behind.

4



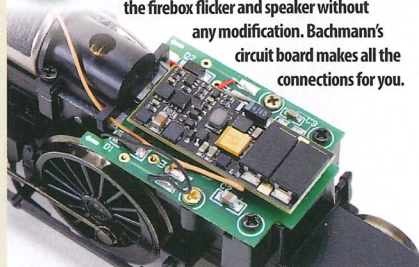
The 15mm x 11mm cube speaker is mounted below the PCB and metal contact springs press onto it to connect it to the decoder socket. No soldering or wiring is required to make the speaker work with a sound decoder.

5



Removing the small black blanking plug reveals the Next18 socket. The blank allows the model to run on analogue control, and we recommend storing this back in the locomotive's original box for safe keeping.

6



The ZIMO MX659N18 decoder simply clips into the socket on the PCB and takes power from the socket while feeding the connections to the firebox flicker and speaker without any modification. Bachmann's circuit board makes all the connections for you.

7



The body can now be reunited with the chassis to complete the installation process. The decoder fits neatly within the limits of the PCB making this a very neat job once completed. This '1P' now sounds as good as it looks.

which you can't get wrong. Decoders will only fit into it one way round by virtue of its position inside a model and there is a positive 'click' when the decoder engages fully with the socket – it doesn't take a lot of force, but you will feel when the chip has clipped in place. The choice of sound decoder extends to the Doehler & Haass, ESU and ZIMO families, all of which have suitably sized Next18 sound chips for direct installation.

This project uses the ZIMO MX659N18 which is a compact sound chip measuring just 20mm x 9.5mm. It has been loaded with Digitrains' ZS026P sound file for the LMS 'Jinty' for its driving features and similar two-cylinder layout to the '1P'. It might

not be perfect sound for the '1P', but with no real locomotive to record from it will certainly do the job and also offers active brakes, three reverser positions, firebox flicker control and a host of locomotive sound functions (see panel).

The step by step guide here shows just how simple it is to upgrade this new generation Bachmann model to sound at home using a Next18 decoder. ■

USEFUL LINKS

Digitrains www.digitrains.co.uk

SOUND FILE FUNCTIONS

F0	Lights on/off if fitted
F1	Sound on/off
F2	Active brake
F3	Long whistle
F4	Double short whistle
F5	Reverser position one
F6	Reverser position two
F7	Reverser position three
F8	Blower
F9	Flange squeal
F10	Live steam injector
F11	Hand brake
F12	Coal shovelling and firebox flicker
F13	Wagons snatching
F14	Buffering up
F15	Cylinder drain cocks
F16	Coupling up
F17	Heavy train/light engine mode
F18	Guard's whistle
F19	Fade all sounds
F20	Shunt mode
F21	Safety valves
F22	Water tank filling
F27	Volume down
F28	Volume up

GO ONLINE!
VISIT WWW.KEYMODELWORLD.COM
TO HEAR THIS IN ACTION