

**STEP
BY
STEP**

Sounds of Ireland

Putting his Luddite sentiments to one side, **GEORGE DENT** takes his first steps into DCC sound, fitting an 'off the shelf' system into one of the excellent 'OO' gauge Murphy Models/Bachmann Class 141/181 diesel locomotives.

'00' GAUGE

Model
Bachmann/Murphy Models
MM0184 Class 181 CIÉ
locomotive; Mr Soundguy
Loksound ESU V3.5 DCC
decoder with sound;
20x40x8mm 100ohm, 1watt
bass reflex DCC speaker.

Price
Locomotive £75; decoder
£91.20 (plus p&p); speaker
£5.20

Availability
Locomotive available from
Murphy Models and MM
stockists; decoder and
speaker from DCC Supplies,
The Annex, Thistledown,
Suffolk Lane, Abberley,
Worcs. WR6 6BE. Tel: 0845
224 1601 www.dccsupplies.com

Level
Intermediate

Estimated time
Three hours

Tools needed
Soldering iron, tweezers,
pliers, files, screwdrivers.

Despite having strong family connections to Ireland, I've never actually been, despite regular invitations. I think my relatives underestimate my fear of flying. I'm not that keen on sailing, either - not after getting caught up in a fierce storm on the Heysham-Douglas Manx ferry.

Maybe I just need to be surprised with a tranquilliser jab and bundled onto an Aer Lingus plane, just as the 'A Team' used to do with BA Baracus. Having said that, I did manage a hop from Manchester to Berlin a few years ago. My sheer terror was tempered by the fact that, as we took off, the plane flew directly over our house. But I digress...

Bachmann's release of the CIÉ General Motors-built Class 141/181, in 'OO' gauge and commissioned by Murphy Models, will stand as a landmark in this hobby. Not only is it one of the most impressive diesel-outline models on the market, it's also opened up more opportunities for small runs of, shall we say, non-mainstream prototypes, an exciting development indeed.

As soon as we received our review samples, I was itching to do a little detailing and enhancing on one of them. Ben had told me how mucky the real

things got and, after watching a great film of Irish freight in the early 1990s (see panel), I realised how right he was.

I was about to set to with my weathering palette, a driver and the supplied extra details when we received another interesting product in the office to review: a Mr Soundguy DCC sound decoder from DCC Supplies.

Sounds alike

Bachmann/Murphy Models now offer a DCC sound-fitted model in their range,

A glimpse into Irish freight in the 1990s

Railfreight Today volume 10: Ireland, produced by TeleRail, is a great document of the Irish freight scene in the final decade of the last century. There is plenty of footage of the main cargo flows around Northern Ireland and the Republic of Ireland, with behind-the-scenes glimpses of terminals and facilities plus interviews with main industry figures.

The '141/181s' feature heavily in this film, including cab rides, and it's interesting to watch the driver operate the machine using a round wheel.

Contact TeleRail on 01524 735774 or see www.telerrail.co.uk for more details.



but only a limited run was produced in certain livery options, so this retro-fitting system offers the benefits of sound to any DCC modeller with a penchant for Irish railways. Offering the usual 12 functions, they are as follows:

- F0: Lights on/off
- F1: Engine start up/stop
- F2: Short horn
- F3: Long horn
- F4: Playable horn
- F5: Brake release
- F6 Air dump

- F7: Coupling
- F8: Uncoupling
- F9: Flange squeal
- F10: Notch up
- F11: Notch down
- F12: Shunting Mode

The start-up procedure takes about 15 seconds to run through, culminating in a pleasant, rhythmic idling note with a few 'clinks' and 'clunks'. As movement is called for by the controller, a hiss of air is heard as the brakes are released and the engine revs rise slightly as the locomotive gets gently

Here's how to do it: Installing a sound speaker



1 The Bachmann model is quite superb but the clean orange livery makes it look a little toy-like. Besides, the real things are often pretty filthy, so this is the perfect candidate for a weathering job.



2 The side handrails can be carefully unclipped and put to one side. This will allow for safe handling without risking damage to the fine plastic mouldings. Each part is different and can only go back from whence it came.



3 To begin dismantling, gently unclip the cab at the 'number two' end (furthest from the radiator panels) and lift it away. The other end is fixed to the bonnet via the radiator grille.



4 With the cab removed, squeeze the bonnet sides to release the locating clips and lift the bodyside carefully away from the chassis. Happily, there are no LED cables or other wires to disconnect.

Although relatively small, adding a bass reflex speaker to the sound system gives the 181 Class a 'throaty' roar when the power is applied.





5 Take the opportunity to stick a driver figure in one or both of the cabs, along with a secondman if desired. This chap is from the Aidan Campbell range (see www.aidan-campbell.co.uk) and has been suitably painted.



6 The Mr Soundguy system for the 181 Class has been programmed into a high quality 21-pin Loksound DCC decoder unit. The sound system is packaged along with a circular speaker and sound chamber.



7 The supplied speaker is pre-wired to the decoder circuit board, but the connections must be severed as the speaker will not fit into the locomotive's bodyshell. Store it carefully, as it may come in useful for another project.



8 Take care when removing the decoder socket blanking plate. My example was very stiff and the prong connectors can easily be bent. Try using a pair of pliers to exert light, but even force from underneath the plate.

under way. Using the preset speed curve, the revs stay at the same pitch until it gets truly under way, at which point the prototype's distinctive 'notching up' sound kicks in. Severe 'thrash' occurs by building up the acceleration.

Obviously, the engine note drops down again as speed is decreased. This 'notching' up or down can also be dialled in at will using the F10 and F11 commands - perfect for representing the application of maximum power to get a heavy train moving from a standing start.

The incidental sounds such as the horn, brake release and air dump are very good, although I thought that the coupling/uncoupling sounds are a bit artificial-sounding (as I've found with most other sound systems that I've come across). Although DCC control and sound have yet to win me over, I did find this unit to be good fun, especially once I'd lowered the preset volume (which is deafening) and got the hang of the

i Model Rail DVD Link

Watch George weather this 181 Class locomotive, along with other motive power, rolling stock, track and buildings, in the *Model Rail Weathering Expert* DVD, out now.

Order your copy by calling 01524 730500 or writing to Rail Vision, PO Box 83, Carnforth LA5 9WW.



'notching' facility. The supplied information sheet gives some helpful hints on this subject.

Getting the bits inside

Fitting the unit should have been straightforward, being intended as a simple 'plug and play' operation. However, I thought I must have been missing something obvious, as there seemed no way of fitting the supplied speaker and sound chamber inside the bodyshell of my model. The unit is fitted with a 23mm diameter speaker and the chamber adds a further 2mm to this, while the interior of the locomotive offers only a maximum of 21mm width.

Luckily, I had at hand an alternative speaker, lying around awaiting review, which is actually from the same source. Sealed in a plastic case, it offers a much improved bass response than the Loksound unit supplied with the DCC decoder, an important factor with rumbling diesel sounds. Being more rectangular in shape also helps it to fit within the confines of the narrow bodyshell, albeit with a little fettling of both speaker case and model. Other speaker sizes are also available and each is certified as Loksound-compatible. They're also very well-priced.

Ironically, I checked DCC Supplies' website to see if there was any mention of this speaker 'issue' and, lo, there was a bold disclaimer mentioning that the standard Loksound speaker will not fit inside the model. By coincidence, they recommend the same

Class 141/181 factfile

Built in the USA by General Motors, the design was adapted from a 'switcher'-style diesel electric locomotive, and their deployment in Ireland allowed steam to be finally eliminated from the network.

An initial batch of 37 machines, introduced in 1962 (141 Class), was followed four years later by a further 12, more powerful, examples (181 Class). Both batches have proved reliable over the years, working freight, engineers' and secondary passenger services, although they are now reaching the end of their lives on the main network.

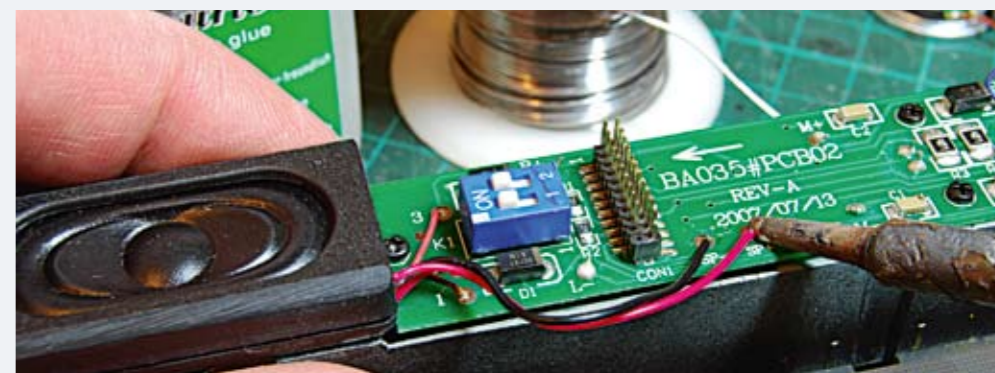
alternative as fitted here.

Apart from swapping the speakers and the associated soldering work, this has been an uncomplicated baptism into fitting a DCC sound unit. As well as the realistic noise coming through the locomotive's roof, the enhanced level of motor control, especially in 'shunting mode', is another point in DCC's - and this decoder's - favour. Indeed, playing around with the model has raised the idea of a small Irish-themed layout, the diminutive size of the 181 Class machine being perfect for a minimum space railway.

But then, I've so many layout ideas and desires at the moment, but no time or space to do anything about them. **MR**



9 To fit the separately sourced speaker, the empty Bachmann sound chamber should be removed and the raised projections of the chassis filed flat. Fill the void with masking tape to prevent filings from entering the mechanism. And prop the circuit board and wires clear of the file.



10 The cab bulkhead and the end of the circuit board were also trimmed back to allow the speaker to fit, the end underside and top side edges each being chamfered. Check that the body will fit before fixing in place, and solder the contacts to the speaker outlets in the circuit board.



11 Carefully push the decoder onto the socket, making sure it's the right way round. To the left is the switch for the tail lights: leave these 'on' if fitting a DCC chip. It may be wise to cover the decoder with an insulating sleeve after testing.



12 The inside of the bonnet and cab required a little fettling to allow a good fit. And although the speaker is not wholly under the grille, the sound is not adversely affected. A tiny drop of superglue may be needed to keep the grille in place.



13 A rolling road is handy for testing any locomotive, but as part of a DCC test track, you'll never run out of road when trialling at high speeds. Check that everything works as it should and modify any values (such as the volume) before letting it loose on your layout.



Some degree of weathering is surely essential for one of these machines, not least to tone down that orange.