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REVIEWED



- ◆ **BACHMANN 'H1' 4-4-2**
- ◆ **BACHMANN Mk 1 STOWAGE VAN**
- ◆ **OXFORD RAIL RAILWAY GUN**

IN-DEPTH - INDEPENDENT - UNBIASED

Workbench TRICKS AND TIPS FROM OUR EXPERTS

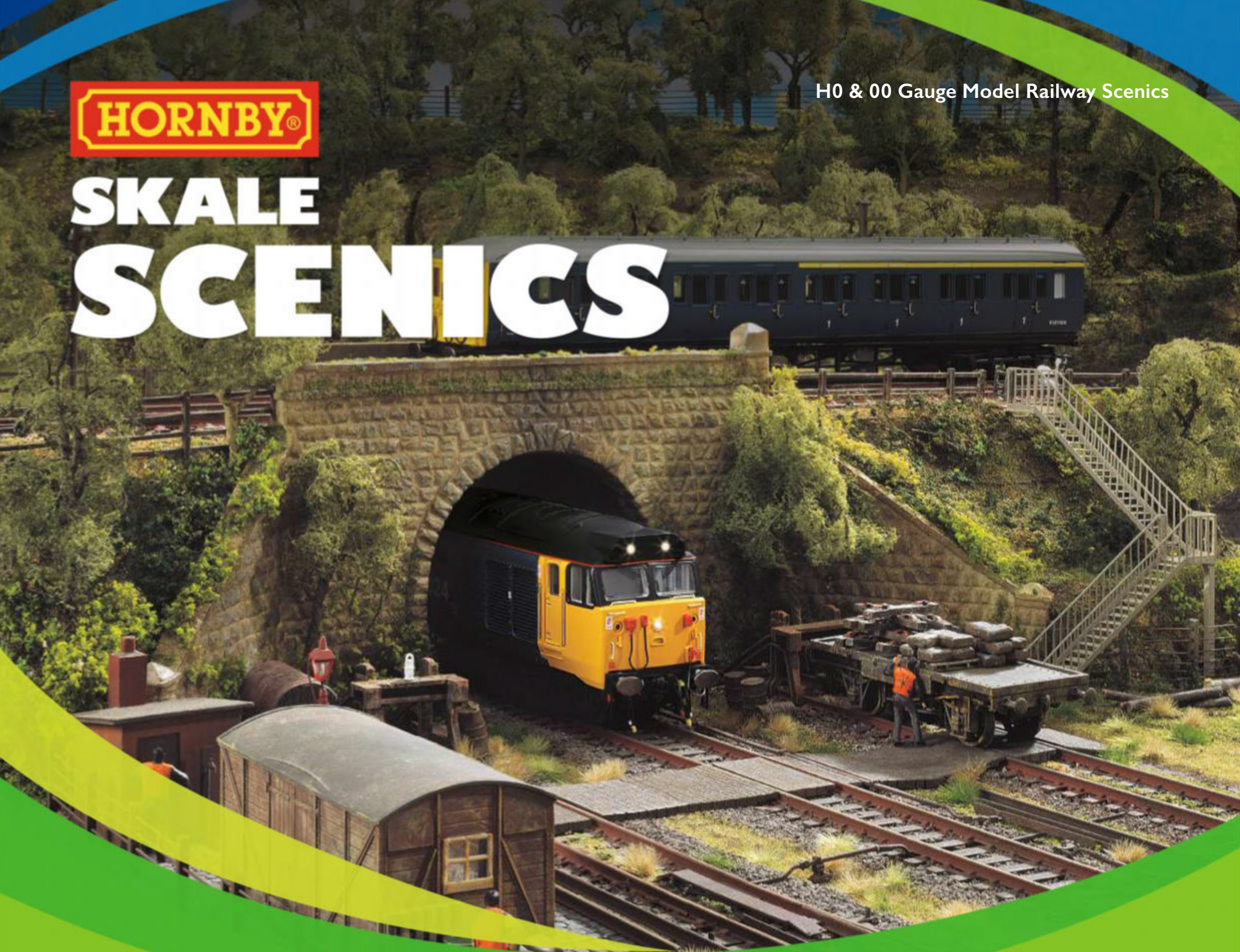
- ✓ Repaint a locomotive
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- ✓ Build a plastic shop kit
- ✓ Make vehicles move





H0 & 00 Gauge Model Railway Scenics

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MODEL RAIL

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**Richard Foster**

Norwich's promotion push coincides with the famous '59 Cup run. Cue a 4mm '4MT' with suitable graffiti!

**George Dent**

George also has eyes on his team's push for a title. Will Liverpool and Norwich City meet in the league next season?

**Chris Leigh**

Chris' sporting achievement extends to a 440yd dash (shows how long ago it was!). He didn't finish last.

**Chris Gadsby**

Chris also commentates on ice hockey matches... that start late on Sunday evenings. Perfect for Monday mornings!

**Chris Nevard**

Our ace snapper is building a name for himself on the folk music circuit. Is there no end to his talents?

**Peter Marriott**

Peter is our jet-setting scenic guru. Knows what products are available and how to get the very best from them.

**Dave Lowery**

Professional model-maker Dave works on top-secret projects for train builders and model manufacturers.

**Paul A. Lunn**

Paul is full of ideas for innovative and exciting layout designs with almost endless possibilities.

**Ben Ando**

Ben is a seriously talented modeller and 'N' gauge expert. He's also started making his own RTR models.



We joined forces with Pat Hammond's online magazine *MREmag* to launch 'Model of the Year' in 2007 (MR99). The concept was simple – "to celebrate excellence and innovation in British outline model railways". Readers were presented with a shortlist of ready-to-run

models in 'N', 'OO' and 'O' produced during 2006, and asked to vote for their favourite. It's a formula that worked well, with manufacturers vying for the top slot and displaying their certificates – proof of your support – with pride.

There's now a plethora of model railway awards from our competitors that all follow pretty much this format.

So, Model of the Year is changing. Rather than wheel it out once a year, Model of the Year will be on display all year.

For each new item of ready-to-run tooling reviewed in *Model Rail*, you can go to our website and vote to decide whether it becomes a contender for 'Model of the Year'. If you all vote 'yes', that model will be shortlisted for a 'Model of the Year' award. At the end of the year, you'll have the chance to vote for the ultimate winner from those shortlisted.

That will make the winner truly deserve the title 'Model of the Year'. Surely that's something to vie for?

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Richard Foster Editor

Life's better with Model Rail

Here's why: Starting as a supplement in *RAIL* magazine, *Model Rail* went 'standalone' in 1997. Each issue we bring you easy-to-follow modelling projects that you can complete without breaking the bank, inspirational photographs of the best model railways and thorough, unbiased reviews so you can make the most informed choices when spending your money. Don't forget our own range of models – see p **16**, **76** and **116**.

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CHRIS NEVARD

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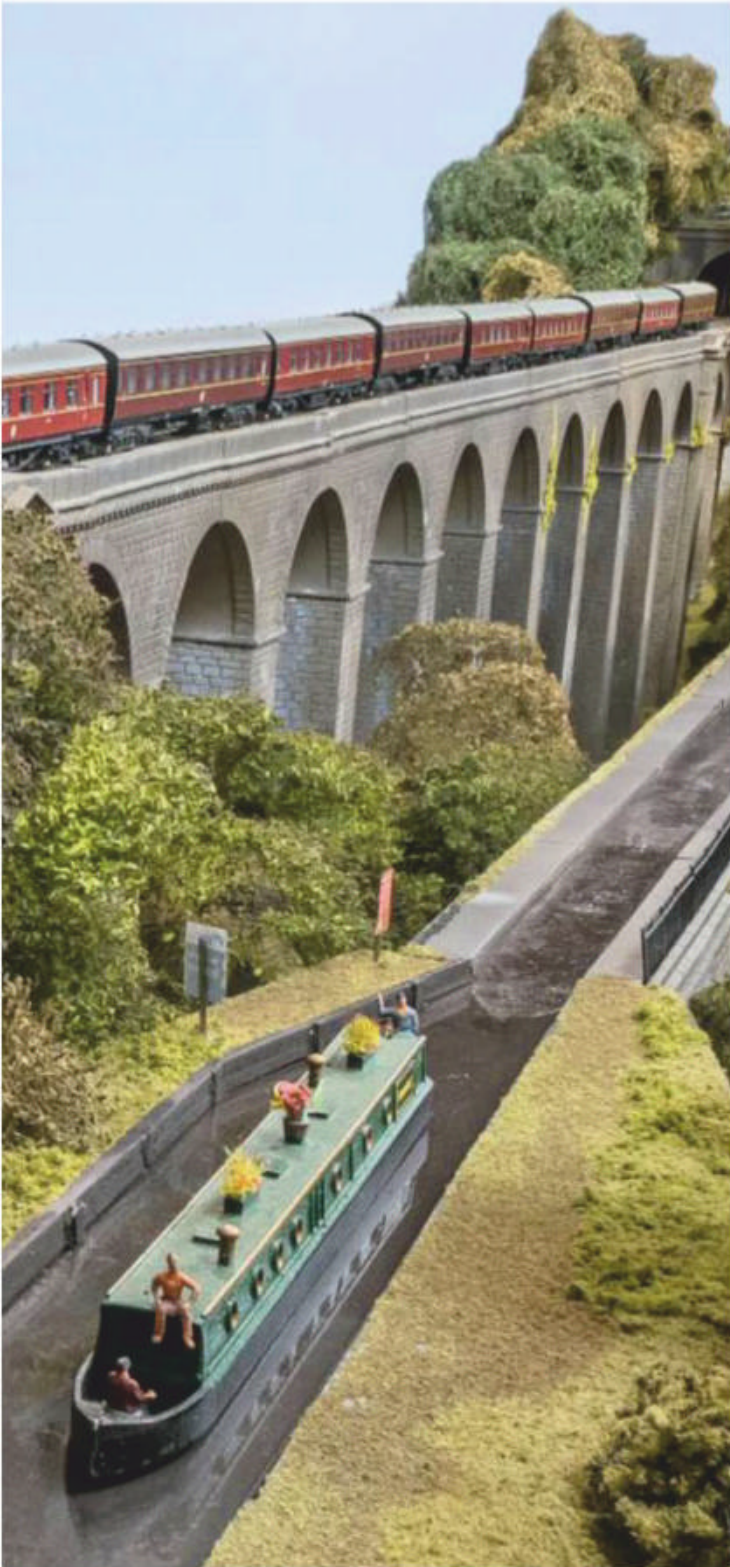
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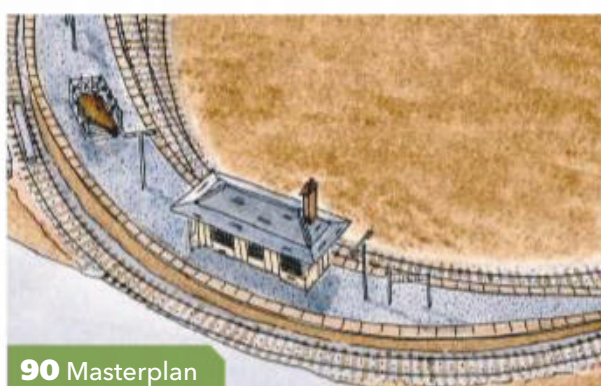
Bachmann's LBSCR 'H1' and Mk 1 stowage van, Oxford Rail's ScotRail Mk 3a and railway gun *Gladiator*, Noch's falling tree and Iwata's Eclipse CS Airbrush.



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Opening the box

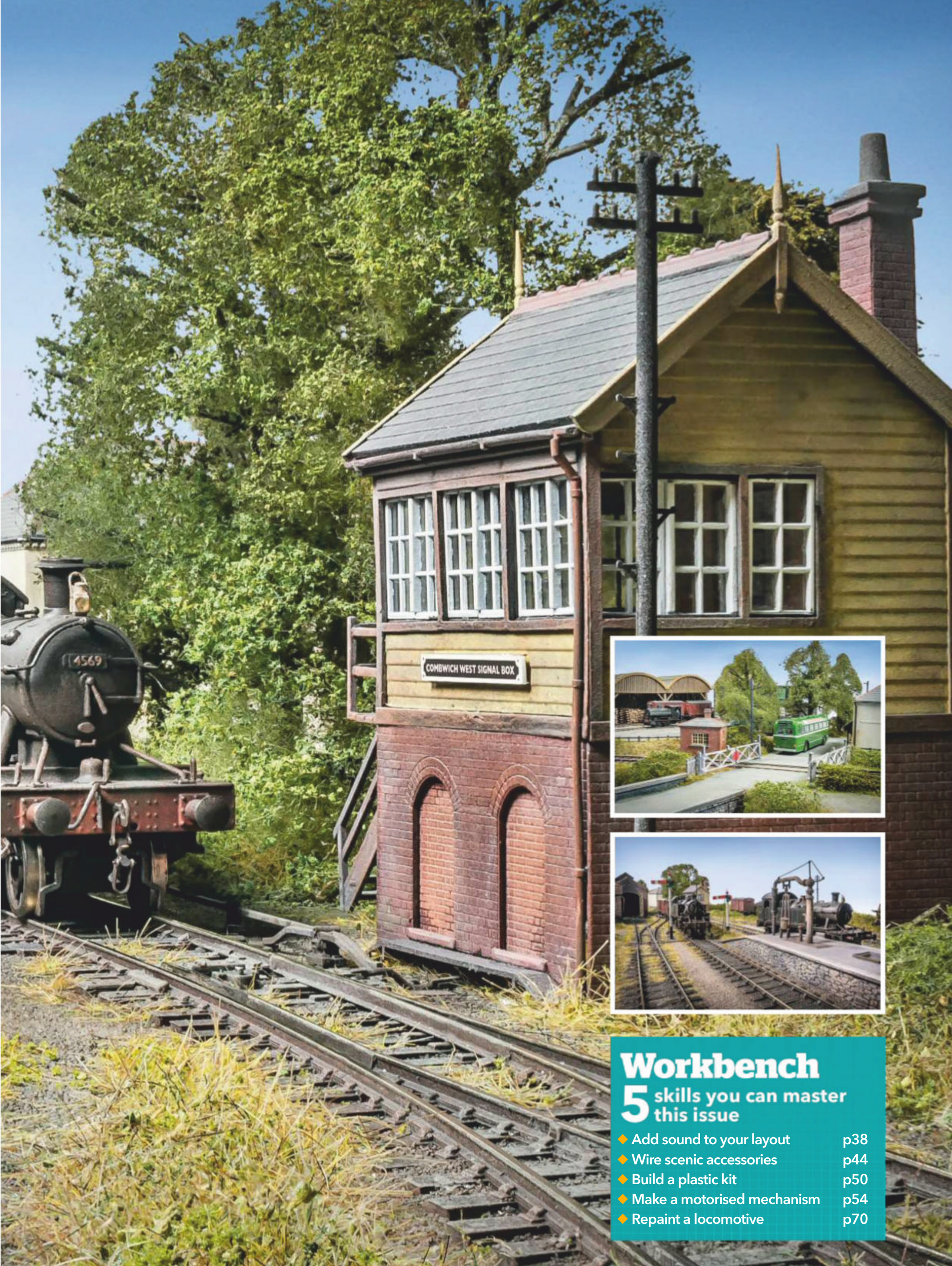
The latest happenings from the world of model railways



The Big Picture

Think that there's something familiar about the layout on the cover? If you think it's Chris Nevard's 'Combwich', you'd be half-right. Chris now juggles professional model-making with his photography and writing for *Model Rail*, so if there's anything you want him to build, just ask. This even extends to building layouts inspired by his own creations. This layout, built for a client, is clearly based on Chris' own 'Combwich' but with a few additional extras!

If you want to commission Chris, drop him a line at info@nevard.co.uk or call 07799 761915.



Workbench

5 skills you can master
this issue

- ◆ Add sound to your layout p38
- ◆ Wire scenic accessories p44
- ◆ Build a plastic kit p50
- ◆ Make a motorised mechanism p54
- ◆ Repaint a locomotive p70

POINT MOTORS... WITH A TWIST

Peco has developed a new point motor system that looks set to banish alignment issues or the need to cut holes in your baseboard with a jigsaw. The new system is called TwistLock and is based around an intriguingly shaped new solenoid (PL-1000).

A template allows you to drill

three holes from above the baseboard: a 6mm hole for the tie-bar pin and two 1.5mm holes for the mounting pins. All you do then is screw in the mounting pins on the underside of the baseboard, slide the tie-bar pin through the hole in the point

and lock it in place... with a twist.

The PL-1000 also comes pre-wired so you don't even need to break out the soldering iron. It also has two little 'feet'

which enable a microswitch (PL-1005) to be attached to change the polarity on live

frog points. The whole system can be used with different scales from 'N' to 'O' and is designed to be compatible with other manufacturers' turnouts.

The PL-1000 will be joined by a version with the microswitch fitted (PL-1001) and a surface-mounted version (PL-1006).

Price: TBC

Availability: Peco stockists



LOADS OF FUN FROM HATTONS

Hattons has launched a new range of ballasts, wagon loads and weathering products under the 'Hattons Constructor' brand.

The initial range consists of five different shades of ballast in 400g tubs (RRP £5.50 each). There are three 400g tubs of aggregates to represent iron ore, sand and granite and two 200g tubs of 'coal' and 'coke'. RRP is £5.60 each. There are starter kits for

each wagon load, which come with card packing pieces and adhesive (RRP £12.50).

Completing the initial range of products is a Track Grime weathering solution (RRP £7.20) and an Oil Spill weathering kit (RRP £9.50).

Further products are due to be added to the range.

Availability: Hattons (Tel: 0151 733 3655 **Web:** www.hattons.co.uk) or Hattons stockists



NEW BALLAST'S A MOUTHFUL

DCCconcepts has produced scale ballast.

It has painstakingly measured real railway ballast and found that it matches the old adage that "no bit of broken stone be used as ballast larger than a man could put in his mouth" is still true. Track ballast typically measures between 2in and 2½in and DCCconcepts has used this to produce Legacy Ballast for 'OO' and 'N' gauges.

There are three main blends in each scale. There's brown for modern main lines or steam-era branch lines, a dark grey for steam sheds and a lighter grey to mimic freshly laid ballast. Each tub retails for £4.96 but there are 5-litre 'Club Tubs' for larger projects that retail for £49.96.

Availability:

DCCconcepts stockists or www.dccconcepts.co.uk



PECO EXPANDS AND REVAMPS '009' RANGE

Peco has unveiled three new ready-to-run '009' models... and has announced a surprise re-tool of two of its elderly 'N' gauge wagons.

Narrow gauge modellers get two new Ffestiniog Railway vehicles and a Snailbeach District Railway hopper wagon. Two of these hoppers were saved by the Talyllyn Railway after the Shropshire 2ft 6in gauge railway closed in 1959.

One has been restored for display in the railway's old shed at Snailbeach.

Peco is to produce the Ffestiniog Railway's Type 3 quarrymen's coaches. Eighteen were built at Boston Lodge works in 1885-1887, followed by further batches in order to replace older, smaller vehicles that lacked doors and windows.

Peco will use the same underpinning to produce the FR

brake vans, which were rebuilt from quarrymen's coaches in 1908. Two body styles will be offered, based on Van No. 1 and Van No. 6.

Peco's all-new 'N' gauge five-plank and seven-plank open wagons will replace models originally launched in 1971. They will have NEM coupler pockets and metal wheels and will come

with a choice of ends. More importantly they will, for the first time, have correct 9ft underframes.

Prices for all models have yet to be confirmed.



Rolling stock releases

Locomotives and rolling stock arriving soon

00 GAUGE HORNBY 'SKIP'

Hornby has produced its Class 67 Bo-Bo in Colas Rail livery as 67027 *Charlotte*, one of a pair of 'Skips' used by Colas on Network Rail monitoring trains.

Product code: R3659 **Price:** £159.99

Availability: Hornby stockists or www.hornby.com



00 GAUGE RED 'STREAMLINERS'

Hot on the heels of its blue LMS streamliner (MR258) come two red ones from Hornby. Received in the *Model Rail* office are No. 6229

Duchess of Hamilton (R3677) and No. 6244

King George VI (R3639). **Price:** £189.99

Availability: Hornby stockists or www.hornby.com



00 GAUGE GWR '153'

Hornby's superb Class 153 returns as 153368 but carrying GWR's dark green livery, with Exeter St Davids and Looe destination screens.

Product code: R3662 **Price:** £109.99

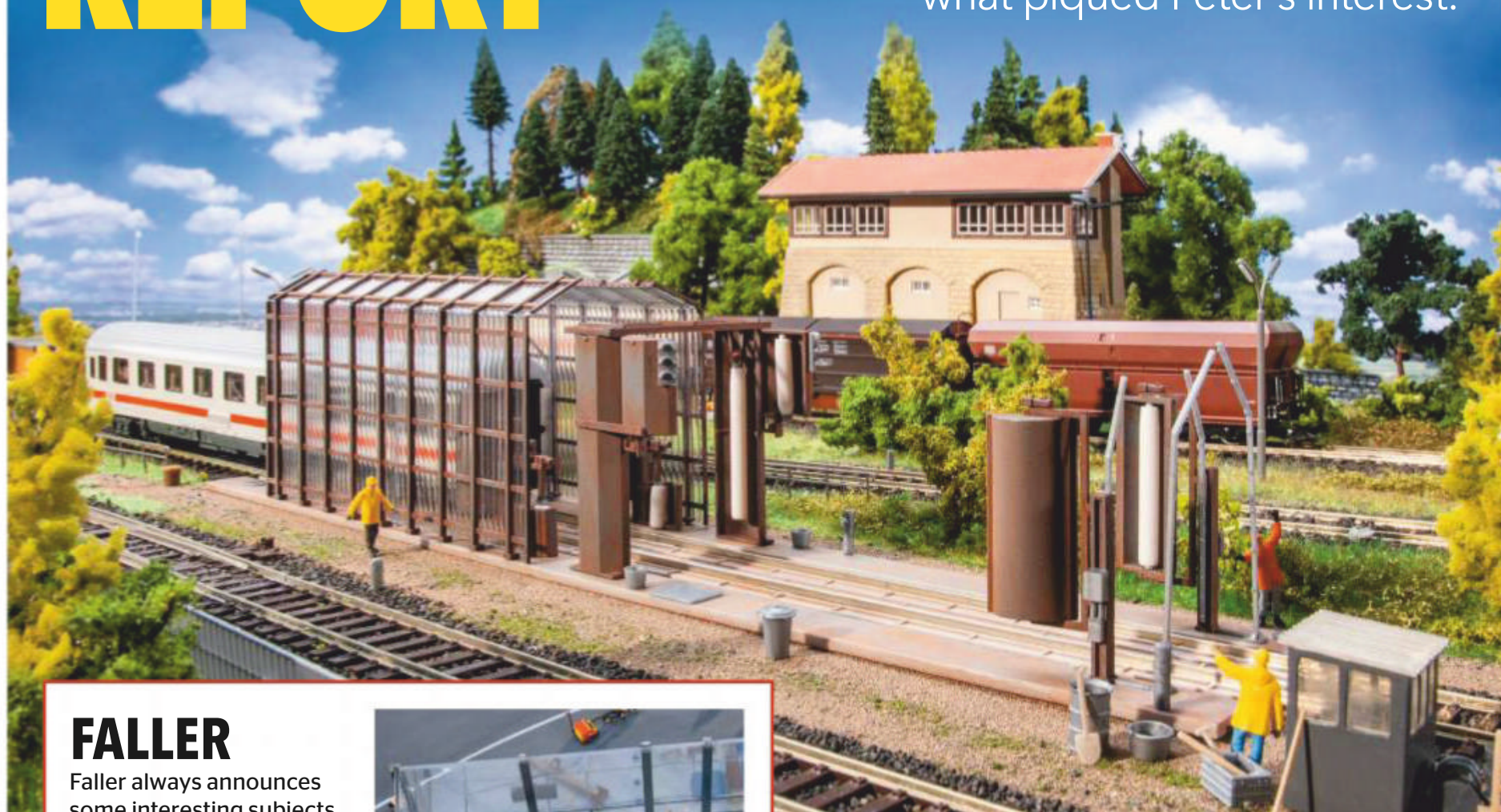
Availability: Kernow Model Rail Centre **Tel:** 01209 714099

Web: www.kernowmodelrailcentre.com



NUREMBERG TOYFAIR REPORT

Peter Marriott attended the annual Nuremberg Toyfair, which featured as many model railway manufacturers as in previous years but was much quieter in terms of new announcements. Here's what piqued Peter's interest.



FALLER

Faller always announces some interesting subjects for its 'OO/HO' kits and 2019 is no exception: there's a modern sports hall complete with gymnasts, a hut and retarders for a hump shunting yard, and a carriage washing plant.



BUSCH

- ◆ The Feldbahn 'HOF' Gmeinder diesel locomotives now come with factory-fitted drivers.
- ◆ Moving accessories include a windsurfer on the sea.
- ◆ 'Action' sets now include petrol forecourt workers, high-pressure cleaning of cars, clamped vehicles, teams setting up telegraph poles, and people playing table tennis and using a grass trimmer (pictured).



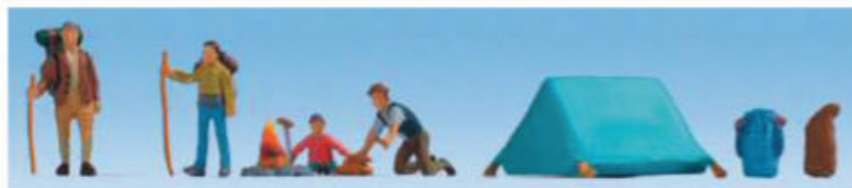
NOCH

Noch's range of miniature people is one of the widest available and has some notable additions for 2019. There's a 'vacations' theme this year with packs of campers, scouts, surfers and sunbathers. There's also a useful pack of 60 painted seated passengers without legs to fit inside 'OO' gauge coaches.

There are new 'O' gauge figures too, including a pack of fishermen, cows and a cyclist. Also new in 'O' are track accessories, including timber crossings and new ballasts.



Noch hasn't ignored the practical side of the hobby with its Foam Train Service Tray. It's designed to hold locomotives and rolling stock securely as you service them or install DCC decoders, and there are slots and apertures for holding oils and tools too.



00 GAUGE DJMODELS '92' AND APT-P IMMINENT

DJModels expects that tooling work will start on two of its 'OO' gauge projects "within weeks".

DJM also expects to complete design work on the 'OO' gauge APT-P to be completed during late spring/early summer. Tooling work should start shortly afterwards. The model is being produced in conjunction with Durham Trains of Stanley and it's expected that this will be a one-off production run. If you wish to order an APT-P, visit www.djmodels.co.uk

BASEBOARD LATCHES

Flints Theatrical Chandlers Concealed Shallow Tab Butt-Joint Latch, dubbed the 'coffin lock', is well known in theatre industry for fixing scenery and stage flooring together. Now Flints is to offer the 'coffin lock' to railway modellers as an easy solution for connecting baseboards. Simple to install, they are operated by an Allen key.

Price: £2.57 each (receptacle), £7.90 each (latch)

Availability: Flints Theatrical Chandlers **Tel:** 0207 703 9786

Web: <https://shop.flints.co.uk>



PREISER

Preiser is another firm with a vast range of miniature people. There are additions in all major scales, but my favourites are:

- ◆ 'HO': A pack depicting the rescue of a drowning woman, including one rescuer in a diving pose and a pack of four women hanging out the washing.
- ◆ 'N': A bumper pack of 70 unpainted figures.
- ◆ 'O': A pack of four train drivers and crew.



00 GAUGE 0 GAUGE JUNCTION 'BOX KIT

LCUT Creative has developed this new laser-cut timber LNER signal box kit. It's based on the 'box' that once stood at High Dyke, south of Grantham, where the branch to iron ore quarries met the East Coast Main Line. This 'OO' gauge version is joined by two 'O' gauge versions (the difference is that the steps are either left or right-handed).

Price: £9.99 ('OO'); £21.99 ('O')

Availability: LCUT Creative

Web: www.lcut.co.uk



00 GAUGE BULLHEADED - BUT FLEXIBLE

C&L Finescale is currently working on a new 'OO' gauge flexible track with bullhead rail. The new Trackbase is 1.5mm thick and is designed to be compatible with Peco's bullhead track. It is expected to cost around £7 per metre.

Availability: C&L Finescale

Tel: 01372 748490

Web: www.finescale.org.uk

CHRIS NEVARD



CHRIS NEVARD

News Real What's happening on Britain's railways...

'KIT-BASHING SPECIAL'

Kit-bashing - heavily modifying or converting a proprietary kit or ready-to-run model in order to create something - is one of those modelling practices that has declined in popularity in recent years due, in part, to the sheer amount of ready-to-run models that are now available to buy off the shelf.

But, as these images show, it's still popular in the preservation movement - along with a serious amount of scratchbuilding...



Something old, something new, something borrowed...

The multi-million pound project to build a new Gresley 'P2' 2-8-2 has involved a lot of scratchbuilding - almost £2.5m worth so far. However, this vision of what No. 2007 *Prince of Wales* will eventually look like - created for the cover of sister magazine *Steam Railway* (issue 488) - was helped along with a little 'kit-bashing'.

The draw hook was borrowed from 'J72' No. 69023, under overhaul next door in Darlington, and the lamps came from the Gresley Society's 'N2' No. 1744. NICK BRODRICK/SR

'Hall' to 'Saint' close to steam

The Great Western Society bought No. 4942 *Maindy Hall* with the express purpose of turning it into a 'Saint' (the 'Hall'

was effectively a 'Saint' with 6ft-diameter driving wheels). The heavily modified 'Hall' is close to steaming for the first

time as 'Saint' No. 2999 *Lady of Legend*. A visit to Didcot Railway Centre to see it will be a must for any GWR fan! TREVOR JONES



Making good use of parts!

A mega kit-bashing project is under way at Tyseley Locomotive Works to create a replica GWR 'Grange'.

No. 6880 *Betton Grange* uses the boiler from scrapped 'Modified Hall' No. 7927 *Willington Hall*, the bogie from 'Hall' No. 5952 *Cogan Hall* and spare driving wheels borrowed from GWR 2-6-0 No. 7325, along with new frames and new cylinders. The new locomotive should steam for the first time in May. LYNN MOORE



£279.95 vs £2 million

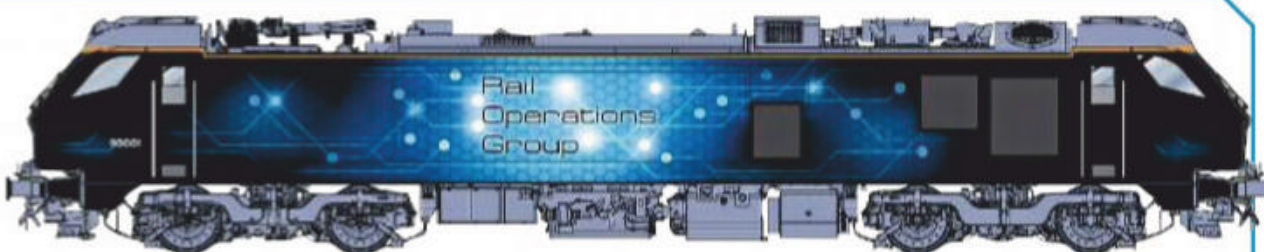
Worried about the costs of models going up? Spare a thought for the LMS-Patriot Project, which has so far spent £2.1m building a replica of Fowler 'Patriot' 4-6-0 No. 5551. The total cost is likely to exceed £3m.

Its new boiler has been tested and fitted at Crewe Heritage Centre, but requires completing internally. Funding for the new tender tank is currently under way. It certainly puts the £279.95 price tag for Bachmann's new 'OO' gauge version (MR258) into perspective. PETE SIKES/LMS-PATRIOT PROJECT

Tri-mode for 2020

And, finally, spot-hire and charter operator Rail Operations Group is to fit new mechanisms to Dapol Class 68s to create ten Class 93s. Actually, the Class 93 Bo-Bos are being built by Stadler and financed through Beacon Rail Leasing.

Although based on Stadler's UKLight design (the basis of DRS' Class 68s and



88s), the new Class 93s will feature not only a diesel engine but will take power

from AC overhead catenary, and will also have batteries. ROG

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2D-022-010/D/S - Class 68 68026 DRS Plain Blue/DCC/DCC & Sound



2D-022-011/D/S - Class 68 68034 DRS Compass/DCC/DCC & Sound

CLASS 122

NEW!



4D-015-006/D/S - Class 122 975042 (55019) NSE (Rt Learn)/DCC/DCC & Sound



4D-015-007/D/S - Class 122 55012 Loadhaul (Rt Learn)/DCC/DCC & Sound



4D-015-008/D/S - Class 122 55018 BR Green Speed Whiskers/DCC/DCC & Sound



4D-015-009/D/S - Class 122 55006 BR Green YP/DCC/DCC & Sound



4D-015-010/D/S - Class 122 M55003 BR Blue/DCC/DCC & Sound

- 4F-034-025 - 21T Hopper - BR E289546
- 4F-034-026 - 21T Hopper - BR E289546 Weathered
- 4F-034-116 - 21T Hopper - NCB 125
- 4F-034-117 - 21T Hopper - NCB 125 Weathered
- 4F-071-118 - 7 Plank - Bute Merthyr 325
- 4F-071-119 - 7 Plank - Bute Merthyr 325 Weathered

- 2F-013-055 - Gunpowder Van - NE 71422
- 2F-013-056 - Gunpowder Van - NE 71422 Weathered
- 2F-036-116 - Bulk Grain - BR Grey B885330
- 2F-036-117 - Bulk Grain - BR Grey B885330 Weathered

TERRIER



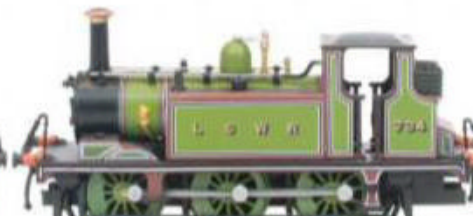
2S-012-009 - Terrier A1 LBSC Stroud Improved Engine Green Brighton Gold



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- 2F-026-003 - HIA Freightliner Heavy Haul Hopper White 369027
- 2F-026-004 - HIA Freightliner Heavy Haul Hopper White 369044

- 7F-051-027 - 5 Plank - SR 9535
- 7F-051-027W - 5 Plank - SR 9535 Weathered

Product Scale Key

O Gauge

OO Gauge

N Gauge

All product release dates correct at time of going to press

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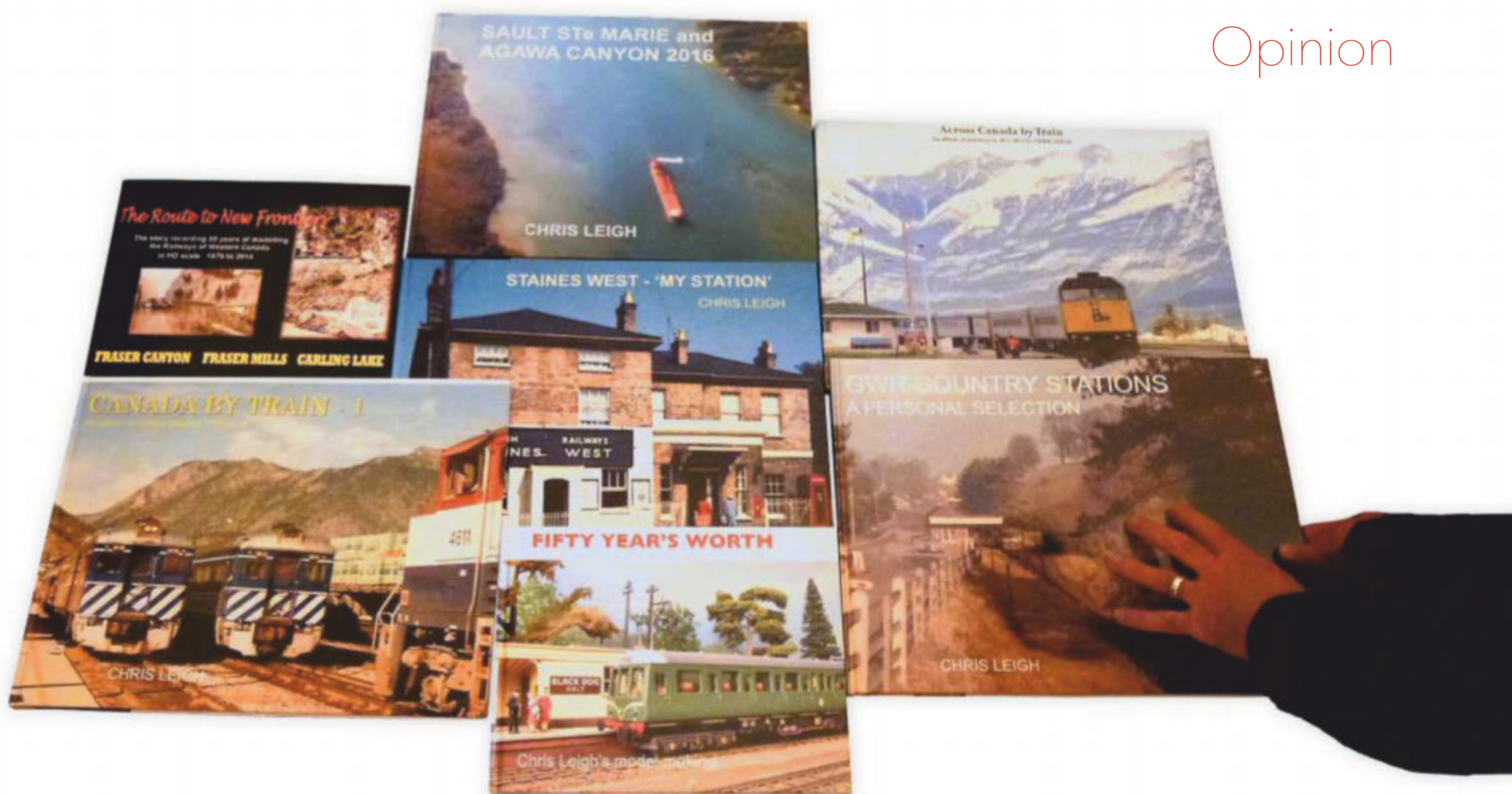
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According to Chris...

His grandchildren call him 'Granddad Trains' and he's been a dedicated railway modeller since the 1960s but, despite popular legend, **Chris Leigh** doesn't remember when dinosaurs roamed the Earth!

There's something very special about books. Even before I started working for a publisher, at the age of 16, I enjoyed being involved in the production of them. I recall being encouraged at school to assemble a diary of a school trip to Switzerland, and I won a writing competition run by Brooke Bond. I can't recall what I wrote but I still have the railway book by Cecil J. Allen that I bought with the prize voucher.

Once I started taking railway photographs with my Kodak Brownie camera, I put any passable prints into an album. I still have the three albums that I assembled in those years but many of the photographs have long since fallen out and been lost. A couple of them will, however, appear on this page in the next issue.

It was in 1979, after I had produced a couple of articles entitled 'Western Country Stations' for *Railway World*, that editor Mike Harris suggested I expand them into a book. Mike was a remarkable character. To those who didn't know him he appeared off-hand and was often described as 'bumptious'. But he knew his stuff. His speciality was carriages and he had written a book on GWR coaches while studying for an MA at York. He died in the early 1990s at a tragically young age.

In his position as one of Ian Allan's trusted senior editorial team, he pushed

forward the idea of a book about country stations of the GWR. I enlisted the help of a fellow fan of Much Wenlock, Adrian Knowles, and some support from one or two other photographers and *GWR Country Stations* was published a year later. There was serious consternation beforehand. Would a book about stations really sell? "We publish books about trains – not sure this is a good idea."

When the designer produced a dust jacket with hand-drawn brickwork and GWR-style lettering, the sales people nearly had apoplexy! It was gratifying, therefore, that Volume 2 was quickly commissioned and that the original volume was repeatedly reprinted over a period of more than 20 years. I should perhaps add that I didn't get rich on the proceeds. As a novice, I had sold the rights for a flat fee and that's all I ever got.

It had, however, established me as a viable author and several more projects followed. They included *The Western Before Beeching* (really a large-format Volume 3 of *GWR Country Stations*), *Portrait of the Lynton & Barnstaple Railway* and two volumes of *Britain's Railways From the Air*, as well as several model railway publications.

There is something very special about seeing one's work in book form. I still get

a thrill when I open one of 'my' books! Even the likes of Google are rubbish compared to the information to be found in books. I have a wall of my study, shelved floor to ceiling, full of reference books. Even now, when I research a subject for *Model Rail*, I find far more information from books (often from my own bookshelves) than I find on the internet.

I enjoyed assembling my albums and those Ian Allan books. In recent years I've become 'hooked' on producing Vistaprint albums for my own entertainment and to ensure that the best of my photographs and memories are recorded in a more permanent form than is possible with electronic systems.

For these albums, I've scanned my old photographs, added electronic images from my present camera and laid out the pages on screen. I've also created albums from the highlights of my recent holidays in Canada. I was introduced to Vistaprint by the late Keith Willows who put together an album of photographs of the various Canadian 'HO' layouts that we built at Egham & Staines Model Railway Society. In the large format that I prefer and with the glossy paper that really makes the best of the photographs, these albums are not cheap, but they make superb 'coffee table' books that family, friends and visitors enjoy browsing. 

Want more Chris? Visit the Chris Leigh Blog at www.model-rail.co.uk/the-chris-leigh-blog

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A 'Ribble' rubble masterpiece

When **Allen Pearson's** 'Ribblehead' was destroyed by a falling tree, there was nothing else for it but to start a new project. And this miniature architectural masterpiece is the result!

Words: **Chris Gadsby** Photography: **Chris Nevard** Artwork: **Andrew Mackintosh**



VITAL STATS**Layout:** 'Chirk'**Size:** 16ft by 2ft 6in**Gauge:** 'N'

Picture the scene: you're on your way back from holiday and, as you near home, you muse 'I hope the house is still standing'.

Allen Pearson returned home to find that a 130ft tall, 7ft diameter horse chestnut tree had come crashing down on his garage during high winds. Thankfully, his house was fine, but his superb 'N' gauge take on the famous Ribblehead Viaduct that starred in the April 2015 issue of *Model Rail* was completely crushed under the timber and rubble.

It certainly wasn't the way most people would want to dispose of a layout...

Allen then started the search for another classic piece of railway architecture to model.

"Two revelations happened when 'Ribblehead' was destroyed," says Allen. "Number one: get insurance. Thankfully I was insured. The funny thing was, though, that while the insurance company paid out for every tree on the layout, it wouldn't pay for damaged plants and trees in the garden as it doesn't insure living things. When you've put hundreds of hours into a layout and spent a lot of your hard-earned money on it, to see it all crushed is heartbreaking."

"Revelation number two came later – in that I then had the opportunity to build another layout and try out some other techniques.

"Once a layout is finished I get bored very quickly ➤



and I had been thinking about a new layout anyway, but I didn't want 'Ribblehead' to finish that way. I did sell what was left on eBay, so maybe one day we'll see it again."

A product designer by trade, Allen is quite handy with computer-aided design (CAD) and wanted to use the facilities available to him. This led to the search for another stunning piece of railway architecture to bring to life in 1:148 scale.

"I knew I wanted a viaduct and, if possible, an aqueduct as well, as that's something which 'Ribblehead' didn't have. Then Chirk [in

Denbighshire] came to my attention. It was perfect! It's a two-track line that's straight and doesn't have any pointwork to complicate the wiring. It would also fit with my Nelevator [see MR246]."

ENGINEERING MASTERPIECES

There's only one place to start with 'Chirk' – those magnificent feats of engineering that are the viaduct and aqueduct. Standing 100ft and 70ft respectively above the river in the valley, and over 700ft long, the aqueduct is Grade II-listed and was built between 1796 and 1801. The viaduct came later in 1846 for the

Below: The road signs and border signs on the canal have been printed from Allen's photographs and glued on.

"I knew I wanted a viaduct and, if possible, an aqueduct as well, as that's something which 'Ribblehead' didn't have"

2



3



3 things we like

1

The greenery has all been made from scatter materials and patches of static grass of varying shades to provide different colours and to avoid a uniform look.

2

The locomotives are all standard and ready to run out of the box. Some of them have been weathered by The Model Centre.

3

The station building is a modified Bachmann building, and the vehicles in the car park are all ready-to-place models that have been weathered.

What makes this layout great?

This layout shows us how technology can help us to make better models and more realistic layouts. 3D printing is doing for scenery what DCC has done for locomotive operation, and 'Chirk' benefits greatly from the use of this relatively new technique.





Chester-Shrewsbury line and locals believe it was intentionally built higher and longer than the aqueduct to emphasise the railway's superiority over the waterways. Allen visited the town on six or seven occasions to take photographs, ensuring that he had as much information as possible to work with when he returned to the computer screen.

"Both structures were designed on a piece of computer software called SolidWorks, right down to the individual stones. The majority of the arches are identical, with only a couple of pieces of decoration on the viaduct that make two of the arches unique. With the design done I could use the 3D printer at work to print them using polyurethane. It does take a long time as there are a lot of layers, so I started the printing process before I left one evening and came back in the morning to a completed arch. I had to repeat the process about 20 times!"

With the arches completed all that was left for Allen to do was to paint them and connect them together, with the joins hidden by the water and the ballast. Once the two structures were in place he could deal with the most difficult part of the build – getting the valley correct.

"The need for compression made this the most ➤





challenging part of the whole construction because it was difficult to make it look right. Naturally, I wanted it to be as accurate to the prototype as possible but, as with many things in model railways, a perfectly scaled interpretation doesn't necessarily give you a good-looking result. It was the slope that needed to be compressed the most and it was tough to make it not look as though it was a cliff."

CREATING REALISTIC WATERWAYS

At the foot of the valley is the River Ceiriog, a tributary of the River Dee which begins on the slopes of Moel Fferna in the Berwyn mountains and forms the England-Wales border between Chirk and the Dee. In model form, Allen wanted to use Woodland Scenics Realistic Water to create the fast-flowing current, but having never used it before he enlisted the help of his friend and *Model Rail* contributor Ben Ando.

"Water is one of those areas that's so easy to get wrong and can take weeks or even months to correct. So, as it was my first time and I didn't know if it would affect the 3D printing in any way if it went wrong, I asked Ben to come and help. We applied a thin layer and allowed it to dry, and then kept building layers until we were happy with the result. It isn't a very deep river at Chirk so we didn't need to use a lot of the product."

Complete with winding hole at the tunnel end, the Llangollen Canal through Chirk was vital in the ➤

8 The trees are from Steven Bird at the Model Tree Centre. Allen oversprayed them with brown and red aerosol paint to give a tired, late-summer appearance.



A taste of the future... or the past?

Lurking behind 'Chirk' station is an 'N-6.5' take on the Glyn Valley Tramway. The train itself is 3D-printed and runs on a 'Z' gauge Marklin chassis. The length of track is only about 2ft, but Allen decided to include it in order to commemorate the tramway that disappeared in the 1930s. This eight-mile 2ft 4½in gauge railway was built to link the communities and, more importantly, the nine quarries of the Ceiriog Valley to the Llangollen Canal at Chirk.

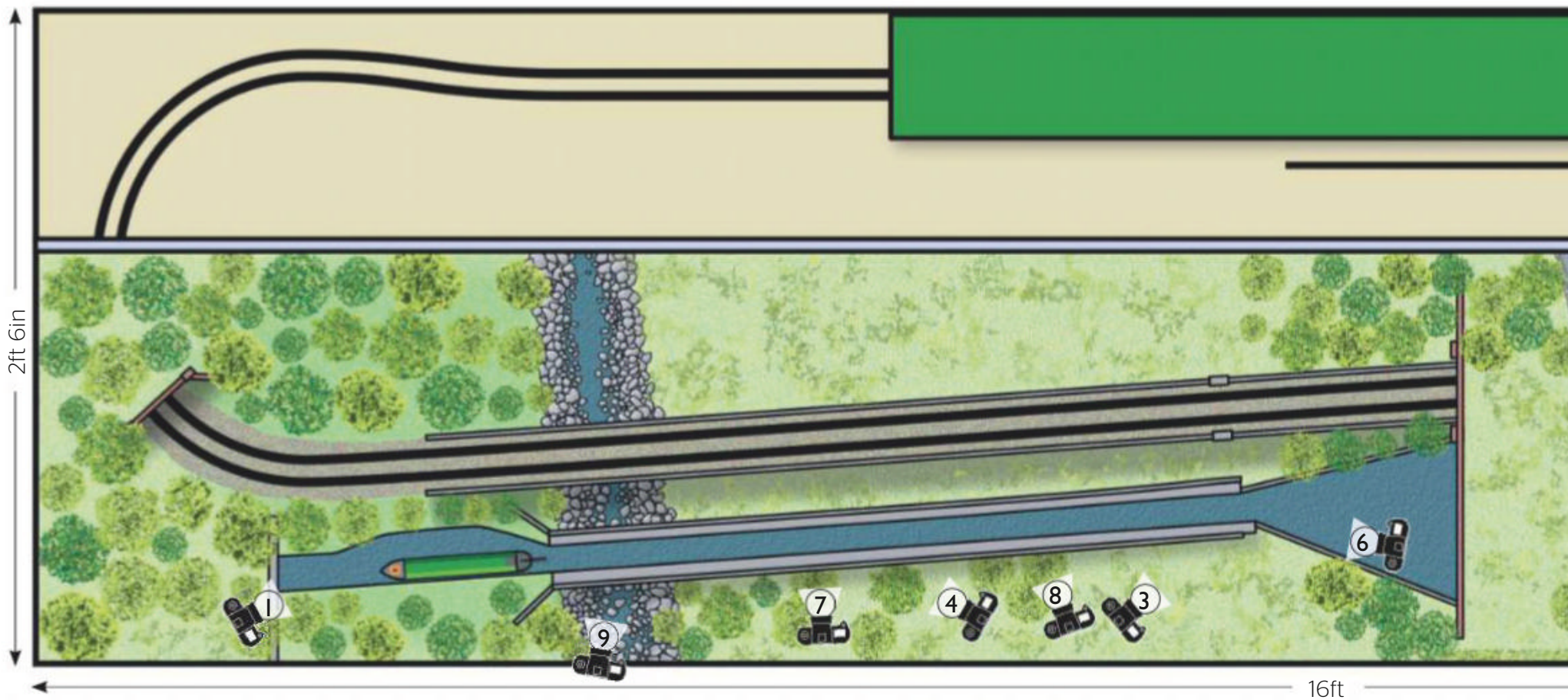
Work started on the route in 1873, but when costs rose after the First World War and the introduction of a bus route provided a competitive alternative for passengers, the tramway was finally abandoned in 1933. Freight continued for another two years until the line was completely closed in 1935 and the locomotives scrapped in 1936.

Some of the carriages were sold to local farmers and a couple survived long enough to be saved by the Tallyllyn Railway. No. 14 was a First Class vehicle that was obtained from Chirk vicarage in 1956. No. 15 was originally Third Class and acquired from a farm near Glyn Ceiriog in 1958. Both have been restored to First Class condition.



The derelict land behind Chirk station has been earmarked for restoration by the Glyn Valley Tramway Trust (www.glynvalleytramwaytrust.co.uk). Meanwhile, the New Glyn Valley Tramway and Industrial Heritage Trust (www.glynvalleytramway.org.uk) has restored the former shed in Glyn Ceiriog village.





19th century for transporting limestone around the country. It runs from the Horseshoe Falls to the west of Llangollen to Nantwich, where four locks drop the water level down to the Shropshire Union Canal. In Allen's garden cabin, the canal is made from clear acrylic above an earth-painted base to give the illusion of depth and add a murky look to the water.

TOWN PLANNING

Not only are the viaduct and aqueduct accurate – so is the town, except for one or two minor discrepancies.

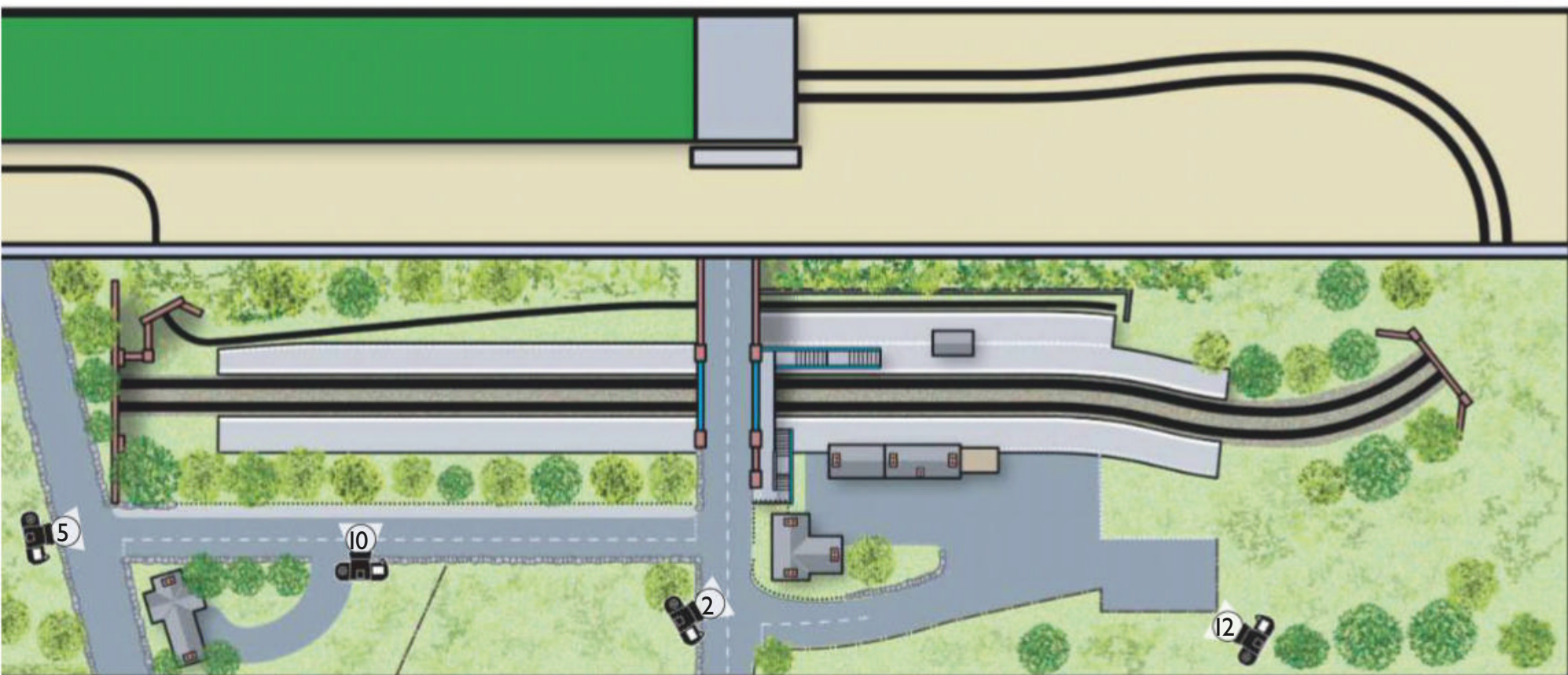
“The road layout and buildings are all in the right place with just a couple of changes. Firstly, on the prototype, there is a roundabout at the junction near the station, but that is fairly new and is one of those roundabouts that don't appear to serve much of a purpose, so I've left it as a T-junction.

“Secondly, the pub on that junction isn't actually a pub, but I can't build a model railway without having a watering hole on it!”

‘Chirk’ may have been born from disaster but the need to replace ‘Ribblehead’ has led Allen to hone his skills and technology that may well, in time, become the norm. We look forward to it! 

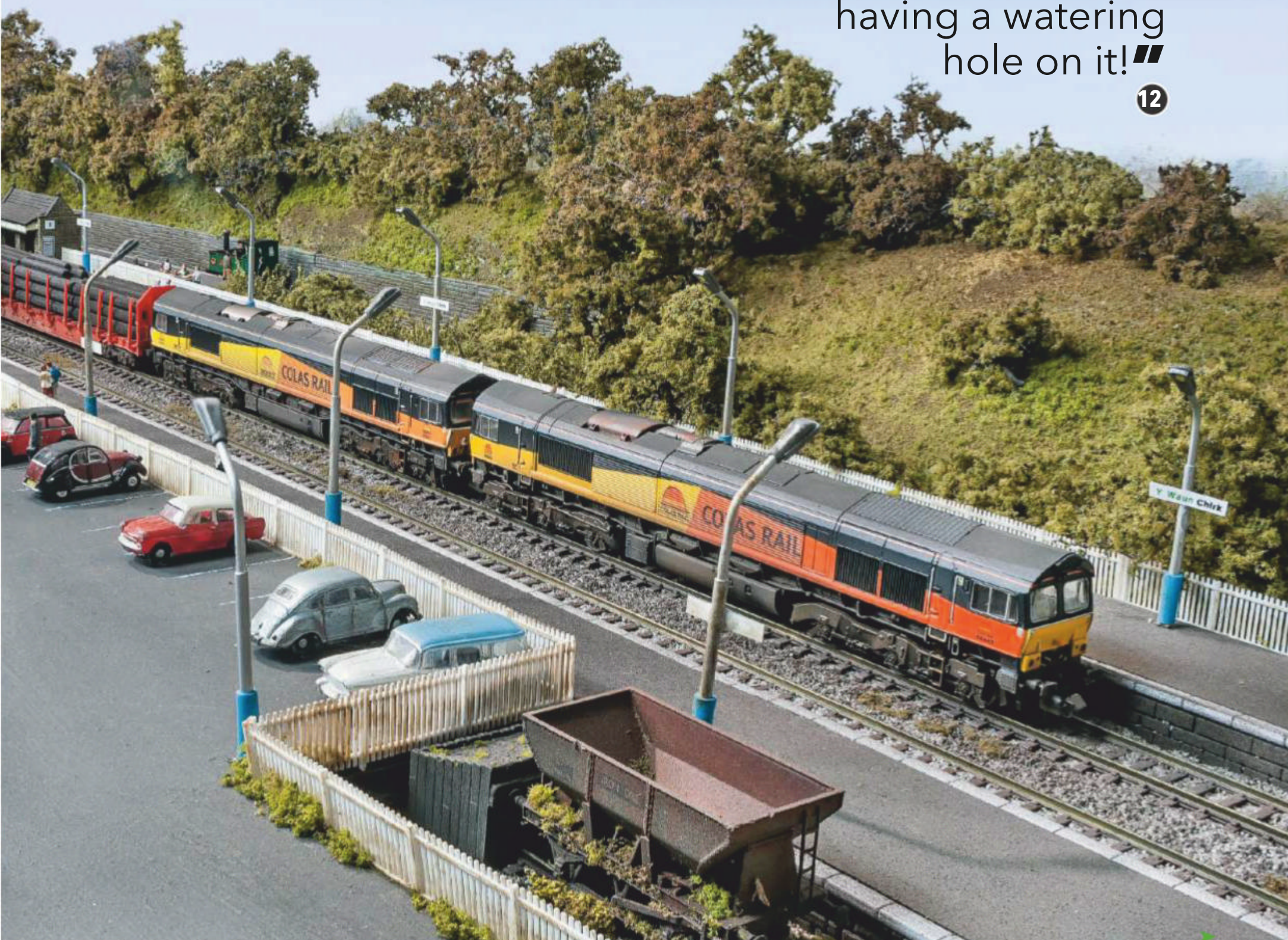
Right: Allen's favourite trains are the Colas log trains which run from Carlisle and Ribbleshead to the chipboard factory at Chirk.



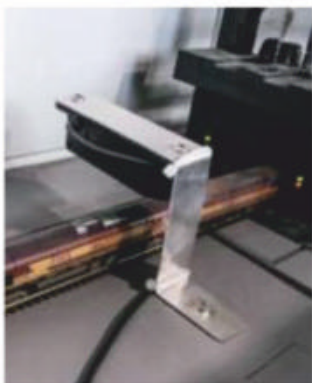


“I can’t build a model railway without having a watering hole on it!”

12



BEHIND THE SCENES

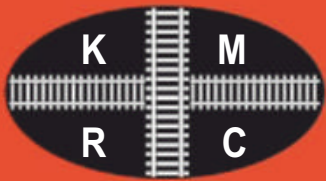


MODELLER CV: ALLEN PEARSON

"I like to find out about the lives of the people that built and worked on the lines I model, so I spend a lot of time researching them. When I'm not doing that I have a big passion for Italian motorbikes."



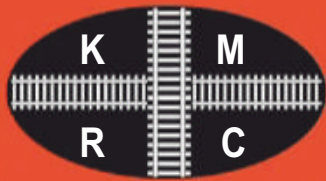
Allen has opted for a simple and easy-to-remove backscene for 'Chirk', which gives quick access to the Nelevator behind. Painted by artist James Green, the subtle treeline and grey emulsion backdrop has been applied onto MDF and simply slots into position.



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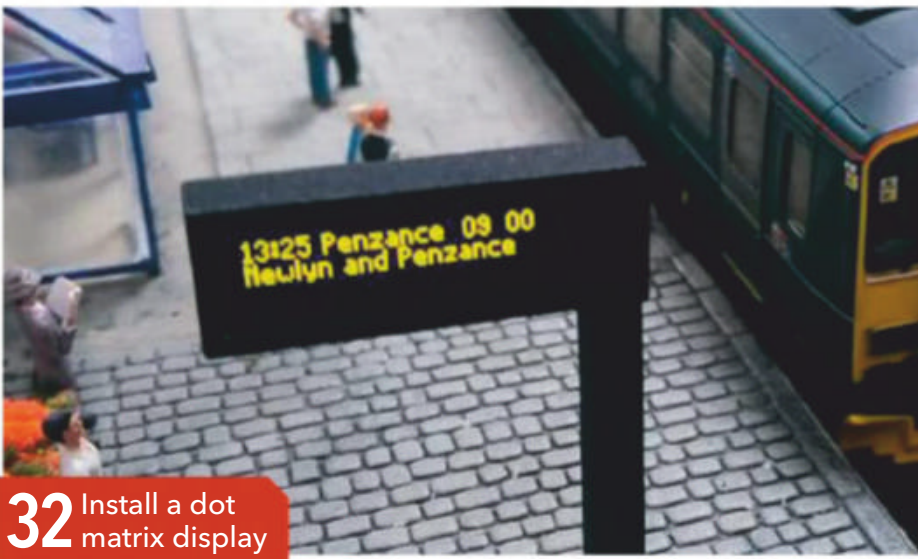
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Meet the *Model Rail* Expert modellers



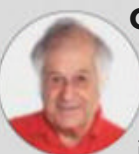
George Dent
Learn from one of the country's best modellers.



Chris Nevard
Our ace snapper is also a hugely talented modeller.



Chris Gadsby
The smaller the detail, the more interested he is.



Chris Leigh
Quite simply, what Chris doesn't know isn't worth knowing!



Peter Marriott
Scenic guru! Knows what's available and how to use it.

Project difficulty ranges from easy: one screwdriver, to very hard: five screwdrivers.

TAP FOR VIDEO

To see the display in action tap the button.

HOW TO

INSTALL A DOT MATRIX DISPLAY

Model Rail's two Chris' join forces to install Train-Tech's Smart Screen on 'Polwyddelan'.

As *Model Rail's* youngest team member by a number of years, and as somebody who doesn't remember anything pre-privatisation, my curiosity is always piqued whenever anything particularly modern-image arrives in the office.

What really grabbed my attention this month was Train-Tech's new Smart Screen. It's a programmable dot matrix display that is capable of showing up to ten messages saying whatever you want and it scrolls just like the real thing. Each one costs £50, so they aren't cheap, but they really bring a touch of outstanding realism to any platform or footbridge - or even a train interior.



MODEL Train-Tech's SD1 Smart Screen ♦ Price £50

AVAILABILITY
www.train-tech.com



We thought it would make a great touch on the platform of Chris Leigh's 'Polwyddelan'.

The plan was hatched, Chris would do the soldering and the installation on his layout (he's spent two years building it - there was no way I was going near it with a drill!) and I would do the programming. This led to a Wednesday afternoon with the two of us in Chris' work room clearing a space among the mound of bits and pieces for future *Model Rail* projects so he could solder the Smart Screen.

A couple of pieces of advice: before you start, read through the instructions carefully as you need to do different things depending on how you want the Smart Screen to operate. Secondly, take your time. Since you can't connect the screen to a keyboard the only way to program it is to go through the alphabet for each letter until you get to the one you want. It took me a bit of time to get used to how the programming works, although that may have been down to never having used Chris' controller before.

STEP BY STEP

1

The screen is very small, measuring just 30mm by 10mm and the front is made of glass, so be very careful when handling it. We placed it face-down on a piece of polystyrene to do the soldering and left the plastic film on throughout the installation process to protect it from damage or fingerprints.

2

Due to the delicacy of the Smart Screen, it is recommended that you do the soldering quickly and only leave the soldering iron on the contacts for a second at most. Use flux to make the process as fast and easy as possible. Also, keep the solder joint shallow, otherwise you'll have difficulty making it fit into the holder.

3

We decided to switch screen messages using a controller, which meant we only needed to solder the two power pads. It doesn't matter which way round the wires go. You can also use track sensors and DCC points to change messages on the screen, with full instructions on how to do that in the booklet.

4

Train-Tech supplies all the wire you need to programme the Smart Screen. Connect the two wires to the main track outputs of your transformer - not the programming track as we had assumed before we started. The screen uses a locomotive address for programming.

5

Since the screen was going on Chris' Cornish layout, he wrote down a list of stations he wanted me to programme into the Smart Screen. It is a good idea to write down what you want to display before you start. Rather kindly, he only gave me seven stations!

6

I have two pieces of advice for when you're programming the Smart Screen. Firstly, keep the instructions to hand as it takes a while to get used to which button to press. Secondly, sit down! Even with my fingers, which are used to phone texting, it took me half an hour!

7

Use a hand drill with the correct sized drill bit to make a hole on the platform where the screen post will be situated. Take your time, ensure that the drill is perpendicular to the platform and test the hole is the right size before adding glue to the post.

8

With the wires passed through the hole in the post we added a small piece of tubing from Evergreen plastic models to give the structure more support. The end had to be tapered to fit into the screen post, but it does provide more support than the post alone.

9

The screen in operation on the platform at 'Polwyddelan'. The only thing that isn't perfect is that the real-time clock resets every time you turn the power on. You can make it start at a different time, but at the moment passengers are in for a long wait before this train leaves!

Your messages have to be programmed using a DCC controller, and since it involves a lot of button pressing it is recommended that you use one on which you can apply functions without having to press the function button first each time - a Gaugemaster handheld model for example.

Once the messages have been programmed, however, you can use either DCC or DC to operate the Smart Screen.

You'll also need a suitable housing. Three types are available: right post, left post or hanging mount, all at £10 each. The hanging screen mounts are suitable for in-train

screens or Underground stations with ceiling-mounted displays. Again, it is worth knowing where you are going to put your screen before you buy to ensure you get the mounting that's right for you.

This really is a superb piece of technology for model railways and was very easy to install. From start to finish we completed it in an afternoon, but that included clearing space and travelling from the office to Chris' house. Depending on the length of your messages (the bottom row can hold 137 characters), you could get a screen completed in an hour.

What you will need

TOOLS

- ◆ DCC controller
- ◆ Wire strippers
- ◆ Wire cutters
- ◆ Soldering iron
- ◆ Solder
- ◆ Hand drill
- ◆ Patience!

HOW TO

FIT 3D-PRINTED FLOODLIGHTS

George Dent tries out a new set of working lamps by installing them on the exterior of a Hornby diesel depot.



These 3D-printed floodlights are a perfect match for a diesel depot, especially this popular Hornby kit.



MODEL AX055-00-BW 3D-printed LED wall-mounted floodlights, pack of six ♦ Price £9.99

AVAILABILITY Scale Model Scenery

Tel: 01530 456952 Web: www.scalemodelscenery.co.uk



Working lights certainly help to bring a layout to life and can look particularly effective in depot or yard scenarios. A key feature of modern industrial and railway infrastructure is the prevalence of powerful floodlights, to meet safety and security requirements.

A new set of working wall-mounted floodlights is available from Scale Model Scenery and they're perfect for a contemporary industrial, commercial or railway location. 3D-printed, they come fully assembled and ready to install, and with the micro LEDs being encased in a tough, matt black material there's no need for painting either.

Other than drilling mounting holes into your model building and passing the ultra-fine wires through the baseboard, all that's left to do is connect them to a power source. Full wiring

instructions are supplied and the lamps can be powered directly from a 3V supply (such as two 1.5V AA batteries) or a standard 12-16V AC or DC supply. If using the latter, the supplied resistors must be connected to each positive (red) cable.

Designed primarily with Gaugemaster's Fordhampton diesel depot kit in mind, they'll look equally at home on any industrial building. In order to test the lamps, I decided to fit them to Hornby's venerable diesel maintenance depot kit (MR212), with very little modification work required. In fact, it took longer to solder up the power connections than it did to fit the lamps.

Once the 12V power was applied, the floodlights emitted a pleasing amount of light with a cool, blue-white hue, so typical of modern lighting. For modellers of 20th century-based layouts, an alternative set

of orange LEDs is also available, to mimic the more traditional sodium-type lighting.

Offering great value and ease of installation, these floodlights look excellent. Indeed, I'm now moved to install more lighting on this depot scene. That's the trouble with adding lights – you soon want to add more!

What you will need

TOOLS

- ♦ Knife
- ♦ Tweezers
- ♦ Mini drill and bits
- ♦ Soldering iron and equipment

STEP BY STEP



1

The floodlights come ready-assembled, and each lamp has 21cm of red and black cable, which should be long enough to reach down through the baseboard from most buildings. A set of resistors is also provided.



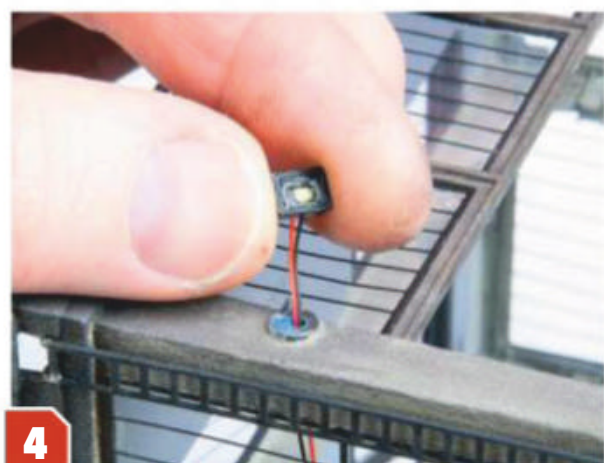
2

Despite having already assembled this Hornby diesel maintenance depot kit, it was easy to cut away the moulded plastic floodlights, two of which are fitted to each end. The round bases were preserved.



3

Having trimmed the face of the round bases flat, the centre was marked with a pin to act as a guide for a 2mm drill bit. Drill the holes gently with a hand pin vice to avoid damaging the plastic walls and nearby glazing.



4

Carefully thread the ultra-fine cables through the drilled hole and check that the rear of the floodlight sits snugly against the wall or base. If not, remove the lamp and dress the surface of the wall flat with a file.



5

Secure the lamps to the walls with a drop of glue. Epoxy, PVA or cyano glue will suffice - I used the latter, for a fast, secure bond. Check that the lamps are sitting squarely before the glue sets.



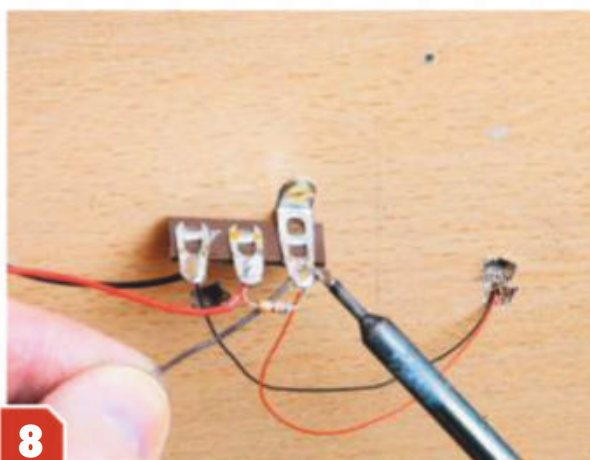
6

A few drops of glue will also help the cables to be arranged neatly inside the corners of the walls. When set, the wires can be painted over and any touching up of the exterior paintwork undertaken.



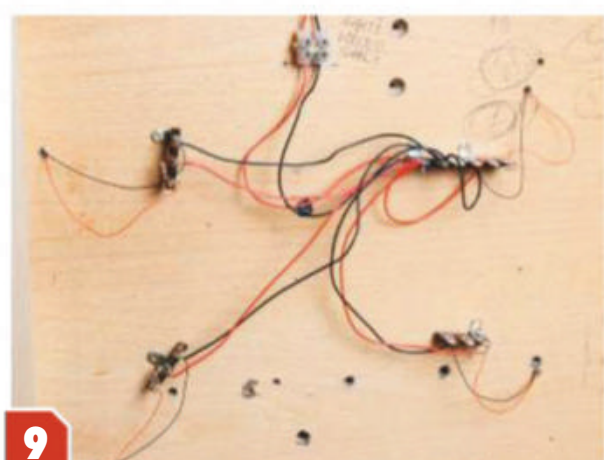
7

Mark carefully the positions where the cables will pass through the baseboard, then drill holes for each pair of wires to pass through. Thread each pair of wires through the holes in the baseboard and lower the building into position.



8

Solder tag strips were employed beneath the baseboard to connect each lamp, with one of the supplied resistors connected to the positive feed. Alternatively, screw terminals would allow the building to be removed more easily.



9

Having soldered all lamp cables and resistors to the solder tags, each positive and negative power cable was then connected to a common twin-terminal screw connector. This, in turn, was linked to the power source.



10

I employed a Gaugemaster 12V DC cased transformer as a power supply. Be sure to connect the positive and negative cables to the correct terminals. Check the lamps work, then fix the building to the baseboard.

To fix or not to fix?

Adding working lights to a building inevitably raises the issue of how easily it can be removed from the baseboard. Some buildings can be fixed permanently, but structures straddling the tracks - such as locomotive sheds - should be removable to allow access for track cleaning or coping with derailments.

Instead of soldering, you could use screw or push-fit terminals for each light cable to make removal easier. However, compression in the terminals will ultimately damage the ends of the fine wire. Instead, consider extending each cable, allowing enough slack for the depot to be lifted and placed to the side of the tracks when necessary, removing the need for disconnecting any cables.

SEE MORE

Keep up to date with George's modelling projects by visiting his blog: **Web:** georgedentmodelmaker.blogspot.com





Inset: He's a model and he's looking good (in an as-yet-unpainted kind of way).

HOW TO

MAKE A MINI ME

With his Land Rover immortalised in 1:43 scale, *Land Rover Owner International's* Assistant Editor **Mark Saville** had to get himself scanned and 3D-printed to match...

Sitting still for 90 seconds isn't too difficult, but not talking for that long is a hefty challenge for me - especially when I'm deeply involved in what's going on around me, which was perching on a caravan step in a small studio in Shrewsbury and miming the act of using my impact gun to remove invisible wheel nuts.

Still, it was my idea to ask Alan Buttler of Modelu to produce a 1:43 scale figure of me to match the recently released 1:43 Oxford Diecast (oxforddiecast.co.uk) model of my Series I Land Rover (43LAN188024). Perfect for a layout! A Facebook friend had tipped me off about Modelu's extraordinary services, so I couldn't wait to find out more about them.

Being 3D-scanned is an entirely new experience for me. I've decided on trying out three different poses - two sitting and one standing. I'm wearing my overalls, rigger boots and gloves and, holding my battery-powered impact gun, I assume the position.

This particular type of scanner works via



MODEL Finescale Figures. ♦ **Price** Cost per scan £35; figures from £1 ('Z' gauge)

AVAILABILITY Modelu, Abbots House Courtyard, Butcher Row, Shrewsbury SY1 1UW
Tel: 07887 803 737
Web: www.modelu3d.co.uk

an iPad - it's clipped onto the back, and uses an infrared laser to determine the distance of the subject from the unit.

"It's relatively low-res in scanning terms. I think it's accurate to about a centimetre, but because everything I make is no bigger than a few inches tall, that's okay," explains Alan. "The original scans are 1:1 actual size and then scaled down in the computer program to whatever is needed.

"I can print in full colour; the scanner has a laser and a camera that's taking small photographs [at the same time] and it texture-maps the mesh [the 3D map] afterwards.

"A typical order is going to be locomotive crew; people like to be scanned to appear on their 'OO' gauge model layouts," says Alan. "The figures go out unpainted but I can get the figures painted, based on the colour scan.

"Traditionally, railway model figures were made in wax and then cast in whitemetal, so when we came along with these 3D-scanned and printed figures it was a transformation. I believe I was the first person in the world to do it within the railway model scene."

Alan has three digital light projector printers. The one he's using today is the latest generation, but they all work in a similar way - 3D-printing works in slices.



Railway and lineside station staff.

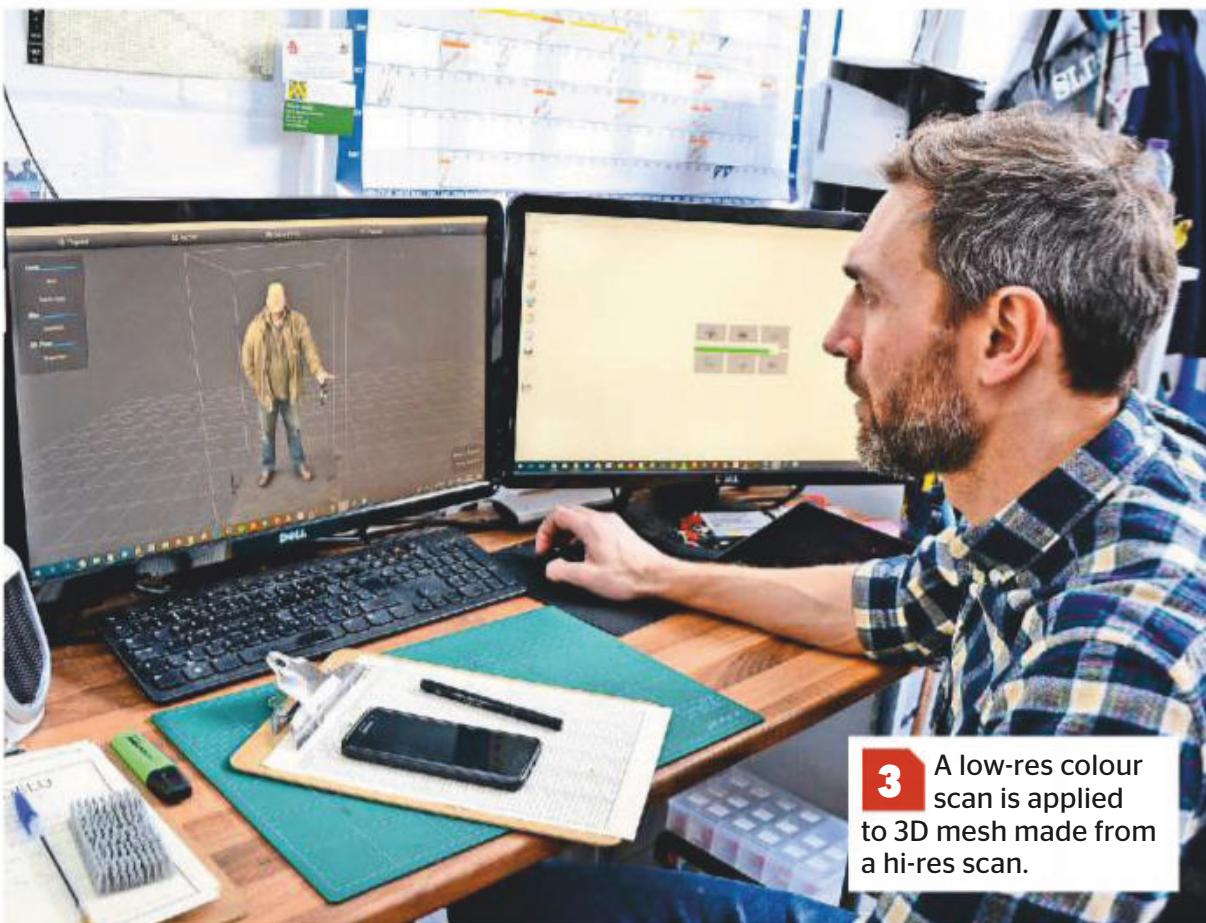
STEP BY STEP



1 Alan Buttler takes a 3D scan of stationary Saville.



2 The council couldn't make up its mind which 'statue' of me to erect in Northampton town centre, so it chose two!



3 A low-res colour scan is applied to 3D mesh made from a hi-res scan.



4 The liquid resin 3D printer gives models amazing surface detail.

"You choose the thickness depending on how much detail you want," explains Alan. "I choose 50 microns, which is about the thickness of finer human hair. If you were to look at each of those slices in plan view, they're like a silhouette of the slice."

The printers have a special LED light projector screen - not a laser - which projects through a special glass window in the resin bath into the light-sensitive resin. At the start of the process, the build table is lowered down into the resin to within 50 microns of the surface of the glass. After each slice is printed, the table moves upwards by 50 microns.

Eventually, the whole figure is completed. The time it takes varies depending on the number of figures or items being printed and what scale they are - the bigger scales use proportionally thicker slices.

So, what stops the resin sticking to the glass window? It has a unique membrane that

absorbs oxygen from the atmosphere; this makes it non-stick. However, the membrane needs to be re-oxygenated after every hour, to 'recharge' its non-stickiness.

The newly printed figures enjoy a ten-minute bath in an ultrasonic cleaner to remove any residual uncured resin, followed by ten minutes in the ultraviolet light cabinet to cure them. After a final trim, they are then either painted or sent to the customer.

Alan's amazing cottage industry began about five years ago as a hobby, when he was making a detailed diorama of a railway works. "That led me towards 3D-printing because you couldn't buy a lot of the machinery and equipment, and I wanted to do it quite accurately. When I was researching the building, I met a couple of the men who worked there in the 1950s and recorded lots of their stories. I thought it would be nice to have them in the model and tell their story."

Alan's reputation has spread far and wide in the railway modelling scene and he regularly takes his kit to shows, where he scans folk 'live'.

I'm delighted with the figures that Alan has made of me. If you're weird enough to want copies of me, or any of the other incredible figures and detailed railway-related items that he's created, have a browse at www.modelu3d.co.uk 

Below: Chris Leigh described how to paint Alan's 3D figures in the March 2019 Issue of Model Rail.



HOW TO

ADD SOUND TO THE LANDSCAPE

George Dent and **Peter Marriott** showcase a range of easy-to-install sound effect units.

Model railways have always been a highly visual medium, where trains can be observed as they pass through a miniature landscape. Sound, however, adds an extra dimension, turning a layout into a multi-sensory experience.

The increasing popularity of DCC sound-fitted locomotives and multiple units has provided layout operators with extra 'play value', yet real trains don't operate in a silent vacuum. A natural progression from sound-fitted traction, therefore, is the addition of complementary ambient sound effects.

Non-digital layouts can also benefit from the addition of sound, whether it be sounds of the urban or rural landscape, or generic rail-themed noises. Indeed, many layout builders have been employing ambient soundtracks on their analogue layouts for decades.

The sound of birdsong, barking dogs, road traffic, human voices, industrial noise, the clanking of wagon buffers and couplings, the clattering of mechanical signal levers - each can be effective in helping viewers immerse themselves in a miniature scene.

Some background sounds can be played on a constant loop, while layering multiple sound tracks can help recreate the hubbub of a busy town or goods depot, for example. Alternatively, other sound effects are better suited to short bursts, such as a horn, siren or platform announcement.

For both analogue and DCC layouts, there are plenty of off-the-shelf sound units to choose from, which can be operated in a variety of different ways. A small selection is showcased here, including a portable sound recording and playback device for the creation of bespoke sound effects.

SOUND ON WHEELS

George Dent plants Hornby's new DCC sound-equipped van into a goods yard scene.

Hornby has taken the novel approach of incorporating a TTS decoder into a four-wheel ventilated van, allowing modellers to introduce ambient sounds to various parts of a layout. Boasting 29 different sounds, each can be triggered by pressing the function keys of a standard DCC controller.

Up to three sounds can be played simultaneously and the volume of each can be adjusted in nine increments. The sounds are grouped into related scenarios: the banging and grinding of a workshop; the sounds of a steam locomotive arriving and departing from a station; shunting clanks and bumps of a goods yard (and a wheeltapper going about his business), and the crashing of signal levers.

Also, there's a range of more generic ambient sounds such as cats meowing, dogs barking, birds singing and owls hooting! Some sounds are presented as continuous loops (including passengers' footsteps and random road traffic), while others are 'single play' outbursts, such as locomotive whistles and clanging buffers.



MODEL Hornby R6888TTS BR vent van with sound ♦ Price £39.99

AVAILABILITY Hornby stockists or www.hornby.com

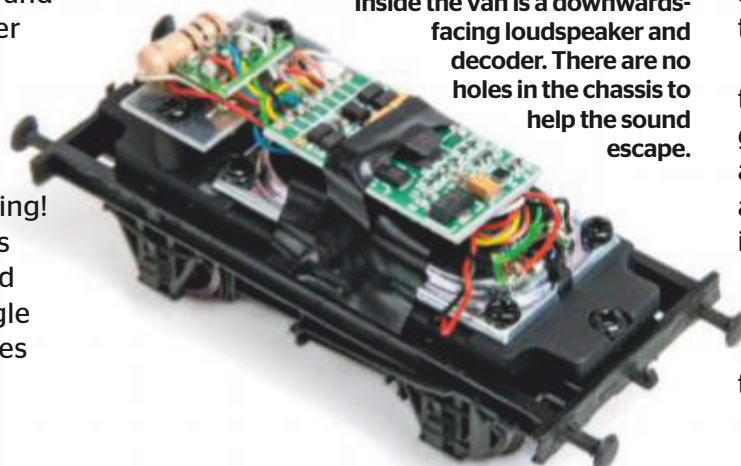


The wagon collects power from the rails via a simple set of copper wiper pick-ups bearing on the rear of each wheel. It is possible to operate the sounds while the wagon is being hauled around a layout, but the power collection doesn't look to be wholly reliable. Accordingly, Hornby has taken the strategic decision to portray the van as a weathered, condemned wagon, so it will suit the role of an abandoned van at the end of a siding.

Besides, the included sounds are much more suited to a stationary area, although shunting it from point to point in order to broadcast the various different sound groups would add plenty of operational interest to a layout.

Alternatively, the van can be hard-wired to the layout's main DCC track supply via a pair of wires soldered to the copper strips beneath the chassis. Threading these cables discreetly through the baseboard will ensure 100% reliable operation, rather than relying on the wheels alone collecting the 'juice'.

Inside the van is a downwards-facing loudspeaker and decoder. There are no holes in the chassis to help the sound escape.



What you will need

TOOLS

- ♦ Knife
- ♦ Tweezers
- ♦ Drill and bits
- ♦ Soldering iron and equipment

Soldering wires to the van's pick-ups requires care, however, given that they're mounted on a plastic underframe. The iron must not dwell on the copper strips for more than a second or two, lest the surrounding material melt. While many resin-cored solders include flux, in situations like this I find it beneficial to employ a tiny amount of a liquid, no-clean, acid-free flux to speed up the solder bond significantly. Be sure to wipe away any remaining residues with a damp cotton swab afterwards. The inside of the van can be accessed by squeezing the plastic tabs that fix the bodyshell to the chassis.

There are no holes formed in the bodywork to help the sound escape, other than the small gaps between the body and chassis. As a result, the sounds are a little muffled and a few strategically placed holes drilled into the chassis floor might be beneficial. In order to achieve this, the speaker and circuitry would need to be removed beforehand - something that put me off trying it for myself.



STEP BY STEP



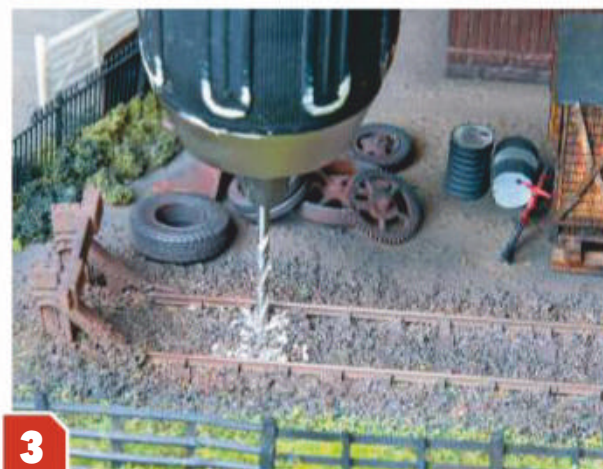
1

With a knife or screwdriver tip, scrape the blackened copper strips clean before soldering a wire to each. Use coloured wires to differentiate between the two polarities.



2

Paint any part of the cables that may be visible beneath the wagon with matt black, to render them inconspicuous.



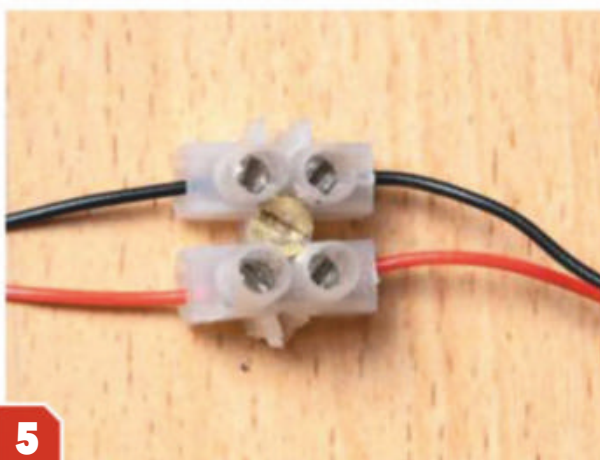
3

Mark the locations between the sleepers where the wires can be passed through the baseboard, then drill a pair of holes, each just large enough for the wire.



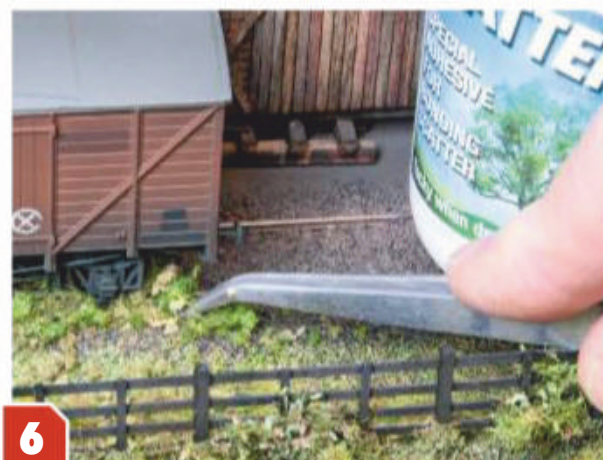
4

Thread the cables through the holes, taking up the slack from below the baseboard. Site the wagon against the buffers, ensuring that the wheels are in contact with the rails.



5

Connect the cables to the main power bus, checking that the polarity of the wires tally with those of the track on which the van is sited. Use of an intermediate screw terminal allows for easy removal of the van.



6

To reinforce the abandoned nature of the wagon, try adding some foliage and grass around the tracks at the end of the siding.

FARMYARD SOUNDS

Noch offers a range of self-contained sound modules. Here and on the next page **George Dent** and **Peter Marriott** go rustic and try out a pair of agricultural-themed packs.

Noch offers various scenic sound module sets, each pack containing a related set of 'HO' scale figures. There's a set to suit many different urban and rural scenarios,

The street musician set features a jaunty barrel organ player and other buskers, the fire brigade set sports the alarming sound of the station receiving an emergency call and a set of firefighters, while the church set includes a priest and his small congregation, accompanied by a melodious peel of church bells.

For a grittier atmosphere, there are a few industrial and construction-themed sets, again including figures and a selection of banging, drilling and digging sounds. There's also a set tailored for a station platform, with a host of uniformed staff and the sounds of bustling passengers, steam trains and announcements. Not surprisingly, given their origin, all spoken sound elements are in German, with short audio clips available on Noch's website.

Away from the townscape, Noch also offers a range of rural sound modules and figure packs and Peter trialled the 'On the Farm' pack, featuring a cacophony of farmyard sounds, such as mooing cows, cackling ducks and geese, plus the gentle 'baas' of sheep, all to an idyllic backdrop of birdsong. A range of animals is supplied, along with human farm workers, although there are only animal sounds to be heard.

Installation of the sound modules is straightforward, with the loudspeaker and circuitry supplied pre-wired, although the cables are very short and will need to be extended in order to reach a power source. Full instructions are provided, though it's simply a matter of connecting the two cables to a 16V AC or DC power source, such as an accessory output on a controller.

ANY GAUGE **MODEL** Noch 12850 On the Farm Sound Scene ♦ Price £33.50 per pack
AVAILABILITY Noch stockists or Gaugemaster
Tel 01903 884488 **Web** www.gaugemaster.com



Suitable for DC or DCC layouts, there are no switching or control options provided; once the cables are connected to the power source, the sounds begin. Therefore, adding an on/off toggle switch to the positive (red) power feed cable is recommended.

Hiding the compact loudspeaker and circuit board is simply a matter of hiding them beneath a building or other nearby structure, or under the baseboard itself. A pair of mounting screws is provided for the speaker and it's a good idea to maintain easy access to the modules for maintenance purposes.

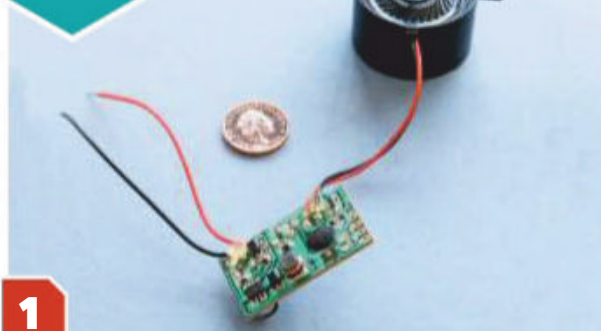
With plenty of scenarios to choose from, these packs offer a very quick and easy route to adding sound effects to your layout. Each set offers relatively good value for money, especially as a handful of appropriate human or animal figures are supplied. Additionally, a limited range of sound effect/figure packs is also available for 'TT' and 'N' layouts. For more information on all of Noch's sound modules, see: www.noch.com/en

What you will need

TOOLS

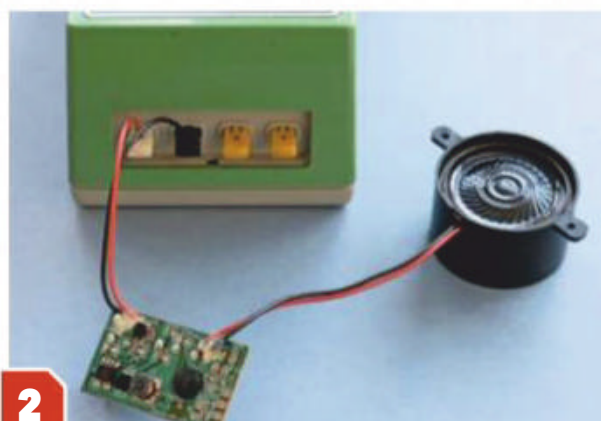
- ♦ Knife
- ♦ Tweezers
- ♦ Drill and bits
- ♦ Soldering iron and equipment

STEP BY STEP



1

The two power input wires are only 8cm long and may require extending to reach the power source. The instructions recommend that the connections are made to the transformer before switching on the mains power.



2

If fitting to a 16V AC output, the polarities are not important. But with a DC supply, the red (positive) and black (negative) wires **MUST** be connected to the corresponding terminals of the power supply.



3

Buildings are usually large enough to conceal the loudspeaker and sound module - this is a farmhouse by Kibri. The loudspeaker comes with two attaching screws, or it can be glued into position.

4

While the 'On the Farm' set features an orchestra of animal sounds, the figures supplied consist mainly of humans, with just a trio of geese.



RECORD YOUR OWN SOUND EFFECTS

On a mission to record a range of ambient sounds, **George Dent** gets out and about with an innovative recording and playback module from Train-Tech.

While Noch's sound modules and Hornby's sound-fitted van are great fun, being able to record exactly the kinds of

sounds to suit your own layout (and personal tastes) is a real attraction. This is now an easy goal to achieve, thanks to this great handheld device from Train-Tech.

Featuring four separate digital soundtracks, each can be recorded and played back at will, with two tracks playable at the same time. Simply point the built-in microphone at a subject, select the track and press record. The device can store up to 35 seconds of sound per track.

By taking the Sound Track unit along to a busy station, it's possible to record all manner of everyday sounds, such as platform announcements, train arrivals and despatches and the bustle of passengers. Alternatively you could record industrial noises, road traffic, aircraft, human chatter, a babbling brook, wind in the trees, bird song, animal sounds or waves crashing on a beach - the possibilities are truly endless!

The sound files are permanently stored in the Sound Track's digital memory and a lock feature is provided, to prevent accidental erasure. For portable use, a standard 9V battery provides ample power. However, when hooked-up to a layout, the unit can be connected to a permanent 9-16V DC supply or the standard output from a DCC controller.

Sound quality, while not exactly super high-fidelity, is nonetheless impressive, especially when considering the unit's small size. The 0.5 watt speaker is more than adequate and the built-in volume control is a real boon. The microphone is rather sensitive too, picking up a good range of sounds and frequencies.

The sounds can be triggered simply by selecting the desired track number and pressing the Play button. Alternatively, separate toggle switches can be connected to the screw terminals to activate any of the four tracks remotely (full instructions are provided).

This is handy if you're mounting the Sound Track unit under the baseboard at a strategic location, with the sounds being switched from the main layout's main control panel. If installing a latching on-off toggle switch, the triggered sound sample will repeat indefinitely until the switch is turned to off. Alternatively, a push-button switch will cause

the sound to play until the switch is released - ideal for a short blast of sound, such as a horn or siren.

Train-Tech also offers train detectors, which are placed beneath the rails at certain points and, by connecting one or more detectors to the Sound Track unit, the samples can be triggered by approaching trains.

The Sound Track unit has provided plenty of fun value.

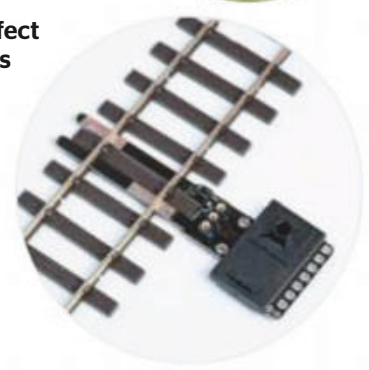
Furthermore, its ability to record and play bespoke sounds offers the chance to portray specific soundscapes to suit your own layout, which can be a real boost to realism and a sense of atmosphere.



Above: Train-Tech's Sound Track unit allows real, everyday sounds to be recorded and played back, such as the hustle and bustle of a busy station or the sounds of the sea lapping a harbour wall.



Right: As well as urban, industrial and railway sounds, the Train-Tech device is perfect for recording the sounds of the countryside, including animals.



Right: Coupling one or more of Train-Tech's Track Sensors allows specific sounds to be triggered as trains pass by.

ANY GAUGE

MODEL Train-Tech SR1 Sound Track recorder and player ♦ Price £69.00

AVAILABILITY Train-Tech Tel 01953 457800 Web www.train-tech.com

1 hr



STEP BY STEP



1

The Sound Track unit comes with four pre-recorded sound samples. To create your own field recordings, simply unscrew the top of the unit and connect a standard 9V battery. Re-fit the top and you're ready to go.



2

Press and hold the Track Select button to switch the unit on, then press the same button again to choose which of the four tracks to assign your recording to. A small red LED indicates the selected track.



3

Position the recorder with the microphone aimed towards the sound source, then press the Record button. Press Record again when the sound stops or leave it to stop automatically if capturing a longer, ambient soundscape.



4

The captured sound can then be played via the in-built speaker by pressing Play. Repeat the process to fill the other three tracks. Remote switching is possible by connecting switches or sensor outputs to the screw terminals.

TAP FOR VIDEO

To hear the cows mooing, see *Model Rail's* digital edition.



MOO-SIC TO MY EARS!

George Dent prefers a quieter life, so he added a simple volume control – and an on/off switch – to a Noch sound module.

I'm lucky enough to live next to a working dairy farm, so I'm used to the sound of mooing at all hours (and the lovely smell!), so Noch's Cow Pasture sound module immediately appealed. Indeed, it would suit my bucolic 'Lisburn Lane' layout, which has a small farm as the main scenic feature.

The set contains a small herd of Holstein cows, along with the sound circuit and speaker. While the mooing is pretty convincing, it's also incessant, rather like the sound of my real-life neighbours when they're queuing up outside the milking shed on a summer evening.

Cows will only be mooing to such an extent for short periods, yet Noch's sounds are on a constant loop. Therefore, fitting an on/off

toggle switch is recommended and this is simply a matter of breaking the positive (red) power input wire and inserting a single pole single throw (SPST) switch into the circuit. When flipped, the switch either interrupts the power input (switching the sounds off) or allows the 'juice' to flow, thus turning the effect on.

As for the volume, which I found excessive, connecting a potentiometer between the sound module output and the speaker creates an adjustable volume control. A potentiometer is a manually-operated variable resistor and is often employed in audio volume controls. There are countless types and values to choose from, but I employed a basic 250K logarithmic taper potentiometer (known as a 'log pot'). These are commonly employed in

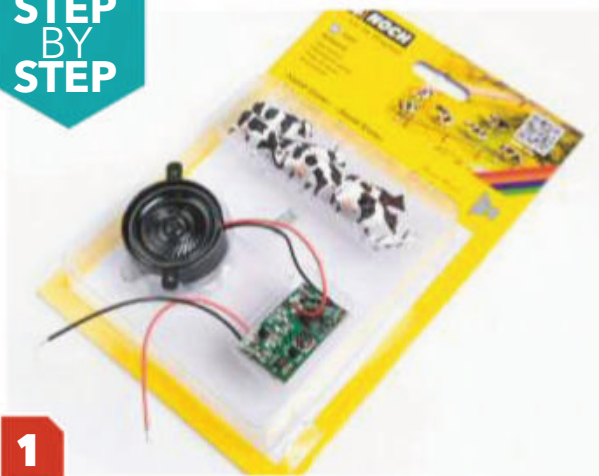
electric guitar volume controls and are available cheaply and readily from music stores or online, from the likes of Amazon.

As Peter mentions, the power input cables are very short so, unless they're being mounted on a PCB that's immediately next to a power source, they need extending. I replaced them altogether, as they were poorly soldered to the circuit board on this particular sample, with standard layout wire employed.

Much depends on your layout's control setup, but extending the speaker output wires, as well as the power input cables, allows the switches and volume control to be housed on the layout's main control panel, while the sound module and speaker are mounted to

Noch's Cow Pasture set suggests the continuous mooing of a herd on their way to milking or waiting to be let into fresh pasture. The supplied figures ought to be arranged accordingly, as if they're waiting impatiently for the farmer to open the gate!

STEP BY STEP



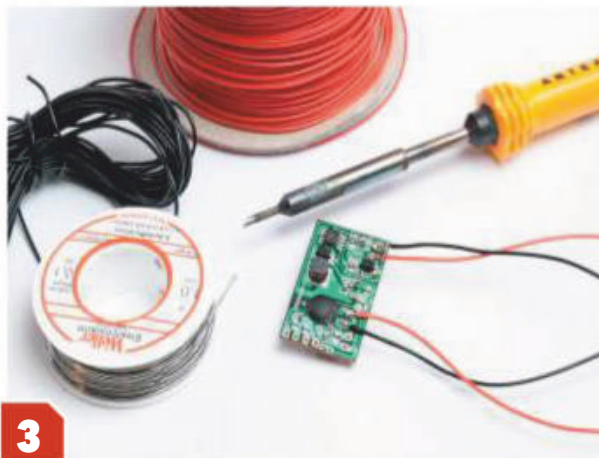
1

Noch's 'HO' scale Cow Pasture package provides six pre-painted cows and a single small calf, along with the sound module and loudspeaker. The cows look overly pristine and would benefit from a little weathering.



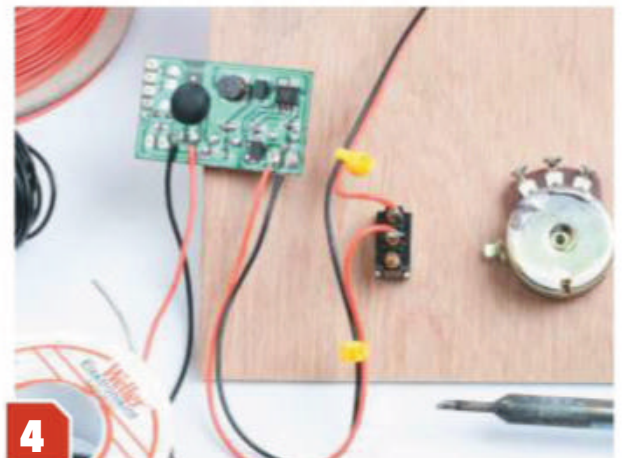
2

The mooing sound is rather loud, and it becomes tiresome after a while. Adding a switch to toggle the sound on and off is recommended, while a simple volume control can also be installed into the circuit.



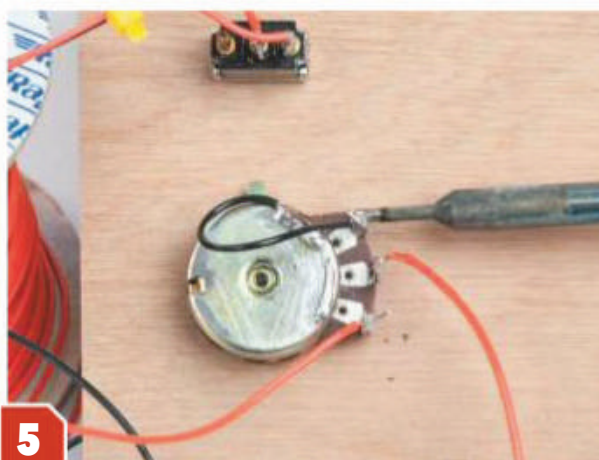
3

The first job was to replace the short power input cables, neatly soldering new red and black wires to the contacts. The wires need to be long enough to reach the power supply, wherever it is sited on your layout.



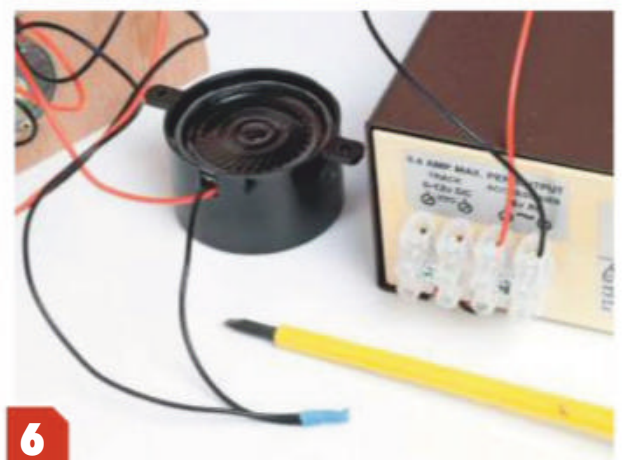
4

The red power input wire was interrupted by a SPST toggle switch. The wires from the sound module to the speaker were also disconnected from the PCB (NOT from the speaker itself) and longer cables soldered to the terminals.



5

The new red output wire was then connected to the end terminal of the potentiometer, while the speaker's red cable is connected to the central terminal. The remaining terminal is linked to the base of the potentiometer.



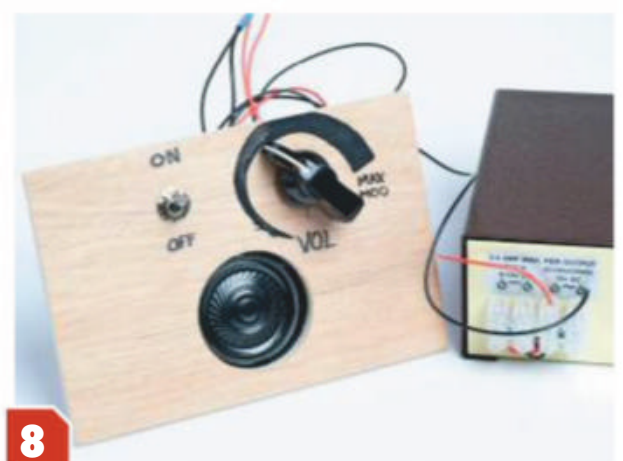
6

The black wire from the speaker is then joined to the new, extended black cable from the PCB output and the bare wire insulated. The input cables were hooked up to a 16V AC accessory output from a small Gaugemaster controller.



7

When happy that the switch and volume control are working satisfactorily, the speaker can be mounted wherever desired. This simple mock-up was intended as a test-bed only, so the speaker was simply glued in position.



8

A knob is required for the volume control (pushing onto the potentiometer's shaft) and an aperture is required if mounting the speaker to a fascia. For greater protection for the speaker's cone, drill a series of smaller holes.

ANY GAUGE

MODEL Noch 12851 Cow Pasture

◆ Price £33.50

AVAILABILITY Noch stockists or Gaugemaster
Tel 01903 884488 Web www.gaugemaster.com

6 hrs



a specific point on the layout, such as under a building (as Peter suggests) or attached to the baseboard or fascia.

Now that I'm able to switch the sound effect on and off at will, while adjusting the volume to suit my own tastes, the Noch unit has become much more fun. The default loudness is fine for an exhibition setting, but for a home-based layout, a lower decibel level is appreciated! Moreover, I can now see the attraction of having a number of controllable sound modules to add some variety to the miniature sonic landscape.

Adding lighting and other effects to a layout is not as complicated as it may seem, with plenty of modeller-friendly options to choose from. Some basic understanding of power supplies and how components can be connected is useful, however. CHRIS NEVARD

HOW TO

POWER SCENIC ACCESSORIES

Adding light and sound to a layout requires a power source and a degree of electrical know-how. **George Dent** explains the basics.

Adding lighting, sound and other ancillary effects to a layout demands one or more suitable power sources. Not all effects require the same type or amount of power, with voltage inputs commonly ranging from 1.5V to 16V, in either AC or DC form. Some effects may even be flexible enough to run on either AC or DC power.

Lighting units tend to be fairly flexible in how they can be powered. Digital sound modules, on the other hand, usually demand a specific power input, with any deviation from the instructions resulting in malfunction or damage to the circuitry.

With such a variety of power demands, therefore, it pays to study the instructions supplied with any electrical components carefully. Thankfully, there are plenty of off-the-shelf power supply options to suit all manner of lighting and sound units.

As well as the power source, it also helps to have an idea of how electrical components can be connected, especially when installing a range of lights into buildings or planting rows of lampposts. With this in mind, here's a quick overview of the basic principles.

Bulbs vs LEDs

BULBS

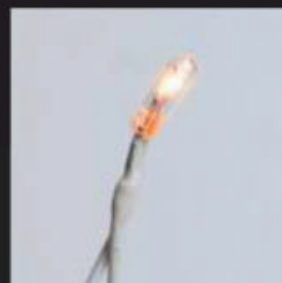
Miniature bulbs work in the same way as full-size traditional light bulbs, whereby a fine wire filament is wrapped in a coil within a glass bulb. When electricity is passed through the filament, it glows brightly and generates heat.

The main drawbacks of these bulbs are their limited lifespan and the fact that they inevitably run 'hot', which is not desirable in close proximity to materials like card, paper or soft plastics. They can be rather delicate and also demand a fair amount of 'juice' to keep them illuminated, especially when a number of them are in use.

Often referred to as 'grain of wheat' bulbs, miniature lamps are very cheap and available in various colours and sizes; typical bulb dimensions are 3mm wide by 6mm long. They're incredibly



Miniature grain of wheat bulbs are a cheap and easy lighting option, connecting simply to a battery or low-voltage power supply.



Traditional bulbs emit a pleasing, 'warm' light that radiates naturally. By lowering the input voltage, the bulbs can be dimmed.

easy to use and can be powered by anything from 1-12V AC or DC, via batteries or a mains transformer. The higher the voltage, the brighter the bulbs will shine, which allows the levels of light to be tailored, either by adjusting the power supply, adding a resistor to the circuit or by wiring the bulbs in series rather than parallel (see diagram next page).

LEDs

LEDs, or Light Emitting Diodes to give them their full title, work in a very different way to traditional bulbs and, in most cases, require a DC power supply. There's no delicate wire filament or glass bulb, as the tiny diodes emit light as electrical energy passes through, although the power can only flow in one direction, from the anode to the cathode.

All LEDs are supplied with one lead shorter than the other. The longer is the anode and the shorter the cathode. The positive polarity from the power supply must only be applied to the anode, via a resistor. The value of the resistor depends on the rating of the LED and the power source and can be calculated using Ohm's Law (see panel).

To make life easier, a number of model railway lighting products that contain LEDs come supplied with a pre-wired circuit board, some of which may incorporate an AC-DC converter, along with all of the necessary resistors installed. A good example is the range of pre-assembled station and street lamp sets from DCCconcepts, which include both filament bulbs and LEDs. The circuitry supplied allows the lamps to be powered by anything from 9V to 18V AC or DC.

Another example is Woodland Scenics' modular Just Plug system, consisting of a central light 'hub', into which pre-wired LEDs can simply be plugged. Mains or battery power options are available, taking away any need for soldering or faffing around with separate



Above: LEDs come in various shapes and sizes. Those with leads sport one longer than the other to denote the anode (longer) and cathode.

Inset: Most LEDs emit light in a more focused direction, in contrast to a traditional bulb's general radiance.

components and cables. Such convenience comes at a cost, however, and creating your own circuits from lamps or LEDs is far cheaper.

Never connect LEDs directly to a battery or other power source, unless instructed otherwise by a product's instructions, or the LED may be damaged. Some LEDs now feature built-in resistors, but this should be double-checked in the instructions before use.

LEDs offer the advantage of shining to a uniform brightness, regardless of power fluctuations, hence why they're popular in model locomotive lighting circuits, especially for non-DCC control. Depending on the shape of the LED, the light may be emitted in a more focused direction, in contrast to the radiating glow of a filament bulb.

Choice of coloured LEDs used to be limited, but in recent times a wider range of colours has become available, from bright white (perfect for modern industrial lighting) to red, yellow and green. The cost has also decreased significantly, making LEDs much more affordable.

Modeller-friendly lighting sets, such as these lamps from DCCconcepts, include all the necessary circuitry to make LEDs compatible with a wider range of power sources. All you need to do is connect the wires to screw terminals.

Calculating resistor values for LEDs

In order to work out the required value of a resistor, it's necessary to know the LED's specifications. With these figures at hand, along with the rating of the power source, we can calculate the desired resistance using Ohm's Law.

All LEDs have a maximum current limit and a maximum voltage. As an example, let's take an LED with a maximum voltage of 4V and maximum current of 20mA (0.020 amps). We'll be connecting the LED into a circuit powered by a 12V supply. According to Ohm's Law, the resistance is calculated thus:

OHM'S LAW dictates that:
 $R = (V_S - V_L) \text{ divided by } I$

Where...

R = resistance

V_S = Supply voltage (12V)

V_L = LED max. voltage (4V)

I = LED max. current in amps (0.020A)

$$R = \frac{(V_S - V_L)}{I}$$

In our case:

$R = 12 - 4 = 8$. We then divide 8 by 0.020 to get 400.

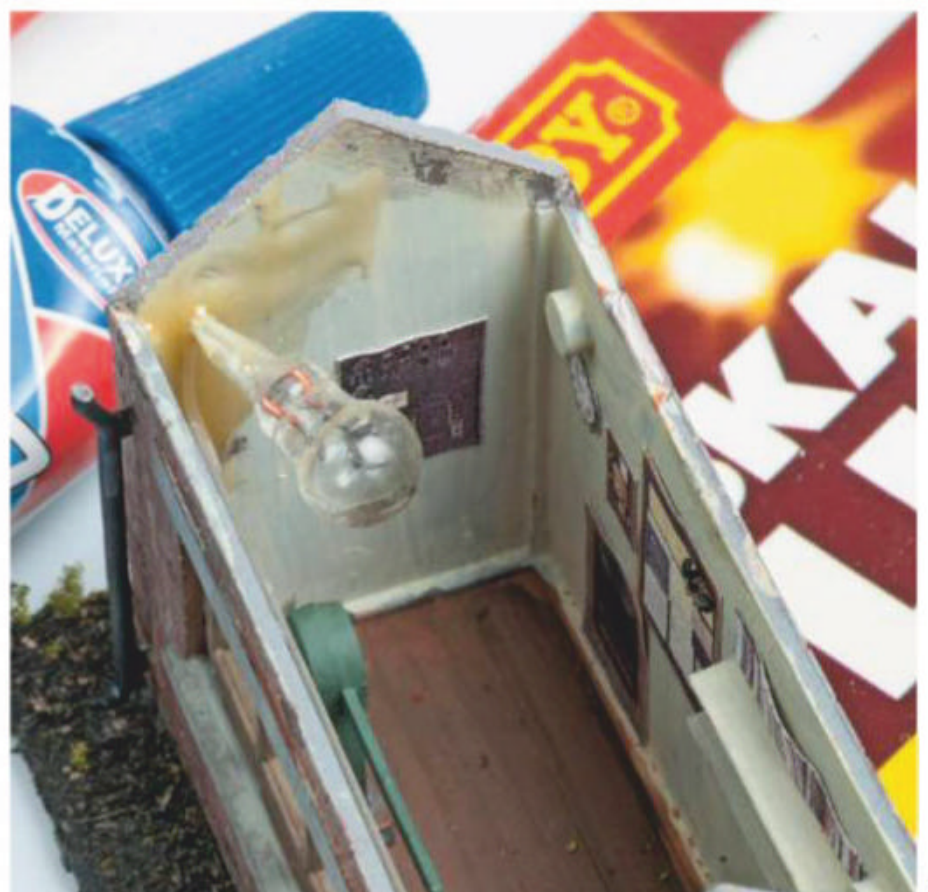
The total of 400 is the amount of resistance required, expressed in ohms.

As resistors come in various standard values, we have to choose the nearest value (always round it upwards), which is 430 ohms.



Above: Hornby's Skale Lighting system removes the need for any soldering or joining of wires, providing plug-in light bulbs, sockets and cable. All that's required is a suitable power source.

Right: Filament bulbs generate heat while illuminated, so they must be sited with care. Ensure plenty of space around the bulb and some means of ventilation. Secure the cables with a blob of epoxy glue or insulation tape.



Series vs parallel

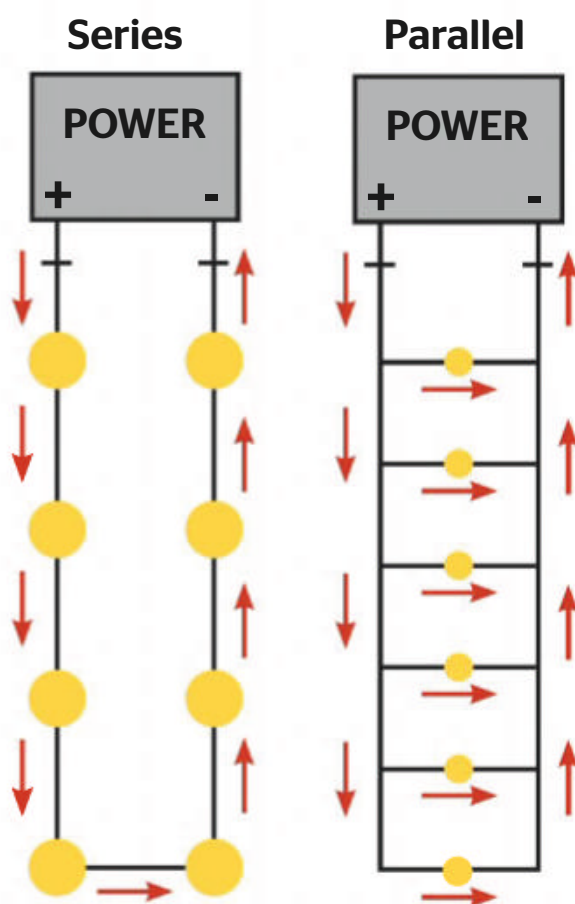
By connecting filament lamps in a daisy-chain formation – known as ‘in series’ – the supply voltage is divided between each lamp. For example, if a 12V power source is employed and 12 identical bulbs are connected in series, each bulb will draw 1V.

This has the effect of uniformly reducing the brightness of each of the bulbs, in comparison to how they would appear if wired individually to the power source. This may be desirable in certain cases, as it also acts to reduce the amount of heat generated by a traditional bulb.

Another pertinent factor of series wiring is that, when one bulb blows, all of the lights will be extinguished as the current can no longer flow through the whole circuit.

In contrast, connecting bulbs in parallel means that each lamp is drawing the full amount of power emanating from the source, allowing them to shine at full brightness. If one or more bulbs were to blow, the others remain unaffected, making it easier to identify and replace the affected lamps. Parallel circuits often involve more wiring, with the positive and negative leads having to reach each individual lamp in turn.

As for LEDs, they can be connected in series or parallel, provided that the



resistors are connected correctly, with the LEDs shining to the same brightness regardless. Wiring a bunch of identical LEDs in series, using just a single resistor in advance of the first LED can save time and hassle.

WARNING!

Low-voltage lighting and sound accessories are largely safe and forgiving but, to protect power supplies and sensitive components, care must be taken to avoid short circuits. Pay close attention to the polarities of power inputs and outputs and the various cables linking each device.

There should be no reason to mess about with mains voltages, other than plugging a transformer into a wall socket. However, it's worth remembering that mains electricity can be dangerous – and potentially fatal – so if you're not sure about any aspect of wiring a layout and accessories, seek advice from a professional.

Useful sources

- ◆ DCCconcepts Tel: 01729 821080
Web: www.dccconcepts.com
- ◆ Expo Tools Tel: 01834 845150
Web: www.expotools.com
- ◆ Rapid Electronics Tel: 01206 751166
Web: www.rapidonline.com
- ◆ Train-Tech Tel: 01953 457800
Web: www.train-tech.com
- ◆ Electronics Club
Web: www.electronicclub.info

Power sources

BATTERIES

The simplest power option for lighting is one or more batteries, ranging from the common 1.5V AAA or AA-type cells to 9V PP3s, which are safe for use on miniature filament bulbs and LEDs. Suitable battery connectors are available to connect the power to the lighting circuit, making battery changes quick and easy.

Batteries offer ample power to illuminate a small number of light bulbs and, generally

speaking, produce a softer glow compared to the higher,

Simple battery connectors are available from electronics stores to suit a wide range of power cells.



constant output of a 12V AC or DC transformer. Due to their lower energy consumption, a greater number of LEDs can be powered from the same battery for significantly longer periods.

Batteries offer the benefits of portability, simplified wiring and lower initial cost compared to a fixed, mains-powered transformer, especially when operating just a few lamps on a small layout or diorama. As the battery's energy begins to wane, filament bulbs will grow gradually dimmer until the cell runs flat (LEDs will retain the same brightness, then cut out altogether).

Higher powered batteries may be suitable for some sound effect units,

depending on the amount of power required to drive the speaker and trigger the sound files. Again, reading the instructions of specific devices will reveal the possibilities.

While rechargeable batteries keeps cost and wastage to a minimum, regular batteries can be an expensive option in the long run. There's also the risk of leakage if batteries are left connected for long periods, or stored in cold, damp conditions (such as a shed, attic or garage). It's also helpful to incorporate a master switch in the lighting circuit to allow the lights to be turned on or off at will, rather than pulling out or connecting the batteries repeatedly.

MAINS POWER SOURCES

The most reliable and, in the longer term, more economical source of electrical power is from a mains-powered transformer. Some controllers, both analogue and DCC, offer accessory outputs of 12-16V AC or DC and these may be used for lighting and sound units, if appropriate.

Alternatively, cased transformers are available expressly for model railway applications, from the likes of Gauge-master, with various outputs offered in DC or AC form.

A 12V DC unit is, perhaps, the most versatile, such as Gauge-master's GMC-M1DC, which provides two separate outputs, both at 1 amp. As well as being perfectly suited to miniature lighting circuits and some sound units, the unit is also ideal for powering most brands of working colour light signals, such as Absolute Aspects, Eckon and CR Signals. It can



Mains-powered transformers, such as this 12V DC unit from Gauge-master, are a worthy investment in the long term. They offer a safe and secure low-voltage output for sounds, lights, signals, point motors and many other accessories.

also be harnessed for powering various point motors, especially slow-action types like Tortoise or DCCconcepts' Cobalt, as well as other machines, such as turntable motors.

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HALIFAX KING CROSS by Stephen Hall
Photo: Chris Nevard courtesy Model Rail

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HOW TO

INSTALL PHOTOGRAPHERS WITH FLASHING CAMERAS

Something momentous happening on your layout? You need a convincing press pack to capture the moment. **Peter Marriott** tests these LED-fitted paparazzi from Noch.

00
GAUGE

MODEL Noch photographers with flashing cameras

◆ Price £50.40 for 6 photographers (stock number 17520)

AVAILABILITY www.osbornmodels.com
and other Noch dealers.

What you will need

TOOLS

- ◆ Mini drill
- ◆ Soldering iron and solder
- ◆ Wire
- ◆ A little PVA or contact adhesive to fix the figures to the layout
- ◆ Spanner



The instruction leaflet advises not to look directly into the LEDs when switched on.

PHOTOGRAPHY: PETER MARRIOTT

Various companies offer model railway accessories with working lights. You can get welders with flashing blue welding lights, station staff with a figure holding a green light on a 'right of way disc' and emergency vehicles with blue flashing lights. Now Noch has produced a pack of six photographers, of which two are fitted with flashing cameras.

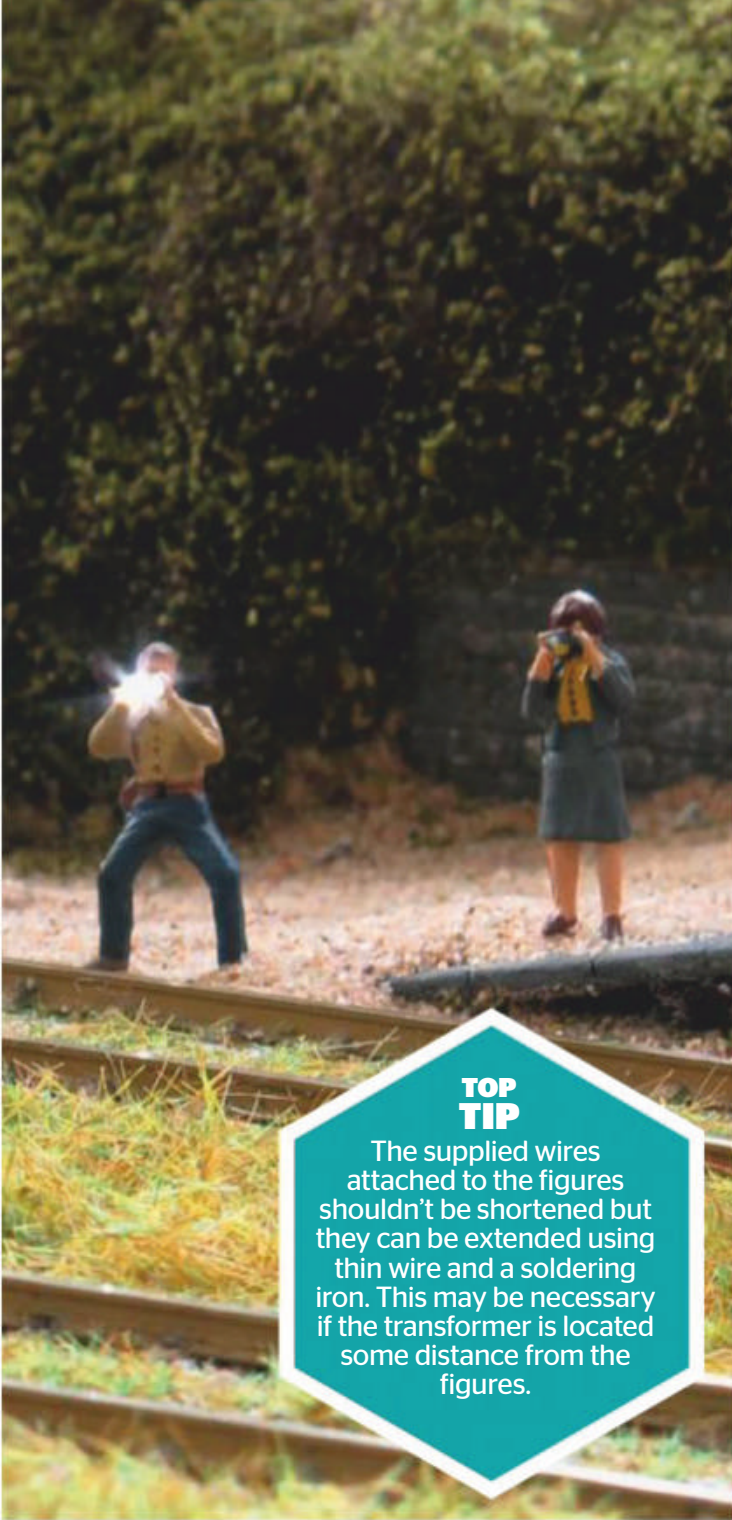
The pack comes with a flash effect chip supplied but you will need to connect it to a 16V AC/DC power source. Don't worry if you are not confident with electrics as the lights come ready-wired and the figures have a nice

matt finish that's suitable for a UK-based layout.

The instructions advise not to shorten the supplied wiring, and it seems unlikely that anyone would do this anyway as the wires will, in most cases, need to be extended to the transformer. I used the accessory side of a Gaugemaster Combi unit as my power supply.

SAY CHEESE...

Each LED has two wires – one with a resistor and one without. The wire with the resistor is the thicker of the two, but both wires are very fine. Both wires need to be connected to a power supply.



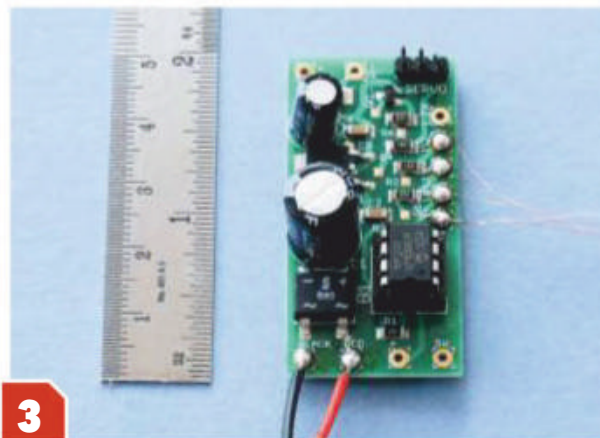
STEP BY STEP



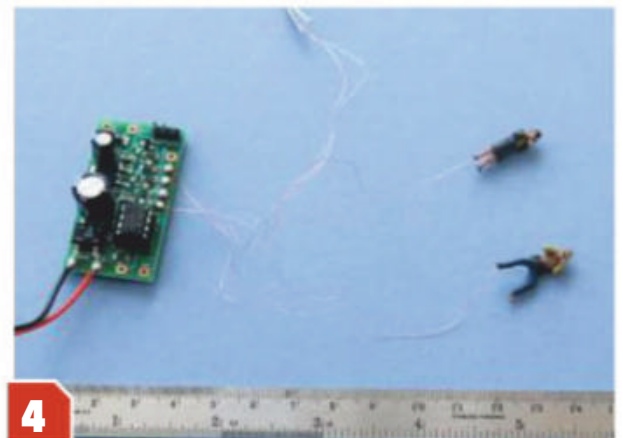
1 The six figures and the wiring come in plastic blister packaging. Four figures come without working cameras, two figures come with cameras that flash and there is also a tripod that flashes.



2 These are the four figures that come without flashing cameras. The figure second from the right is designed to be positioned next to the camera on top of the tripod. He looks more like a wedding photographer...



3 The supplied flash effect chip just needs the red and black wires connected to a 16V AC/DC power source to create the flashing camera effect. The PCB is only a couple of inches long, which makes it easy to hide on your layout.



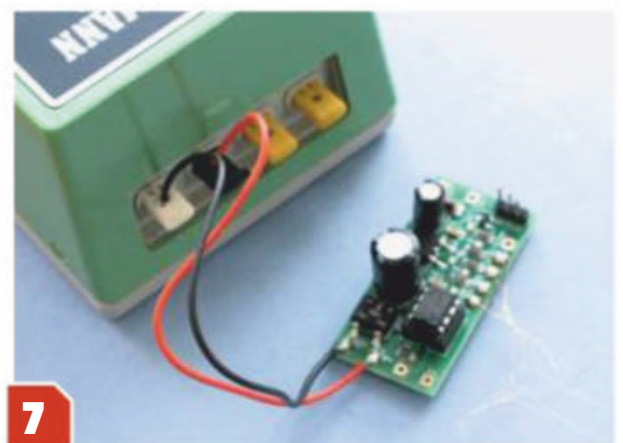
4 Gently unroll the wires from the packaging - they're about 11cm each in length. Be careful not to pull the cables hard as they are very thin and can break easily. Also, take care to not get the cables tangled up.



5 You can see the fine wires on the figures and tripod. At normal viewing distances these wires are not too obvious and easy to hide.



6 The three cameras flash in a random fashion and two just happened to be on together when this photograph was taken. The LEDs on the cameras flash for five seconds then stop for a period of time.



7 Connect the chip directly to the uncontrolled side of a transformer. If you are using an AC transformer the wires can be connected to either side of the two connections. However, if you are using a DC transformer connect the wires with the resistor to the positive connector.



8 I positioned the chip behind a hedge on the layout. It looks obvious now but once the wires are covered the unit and wires will not be visible. Extend the wires by soldering extensions on to them as required but don't reduce the lengths of the wires supplied.



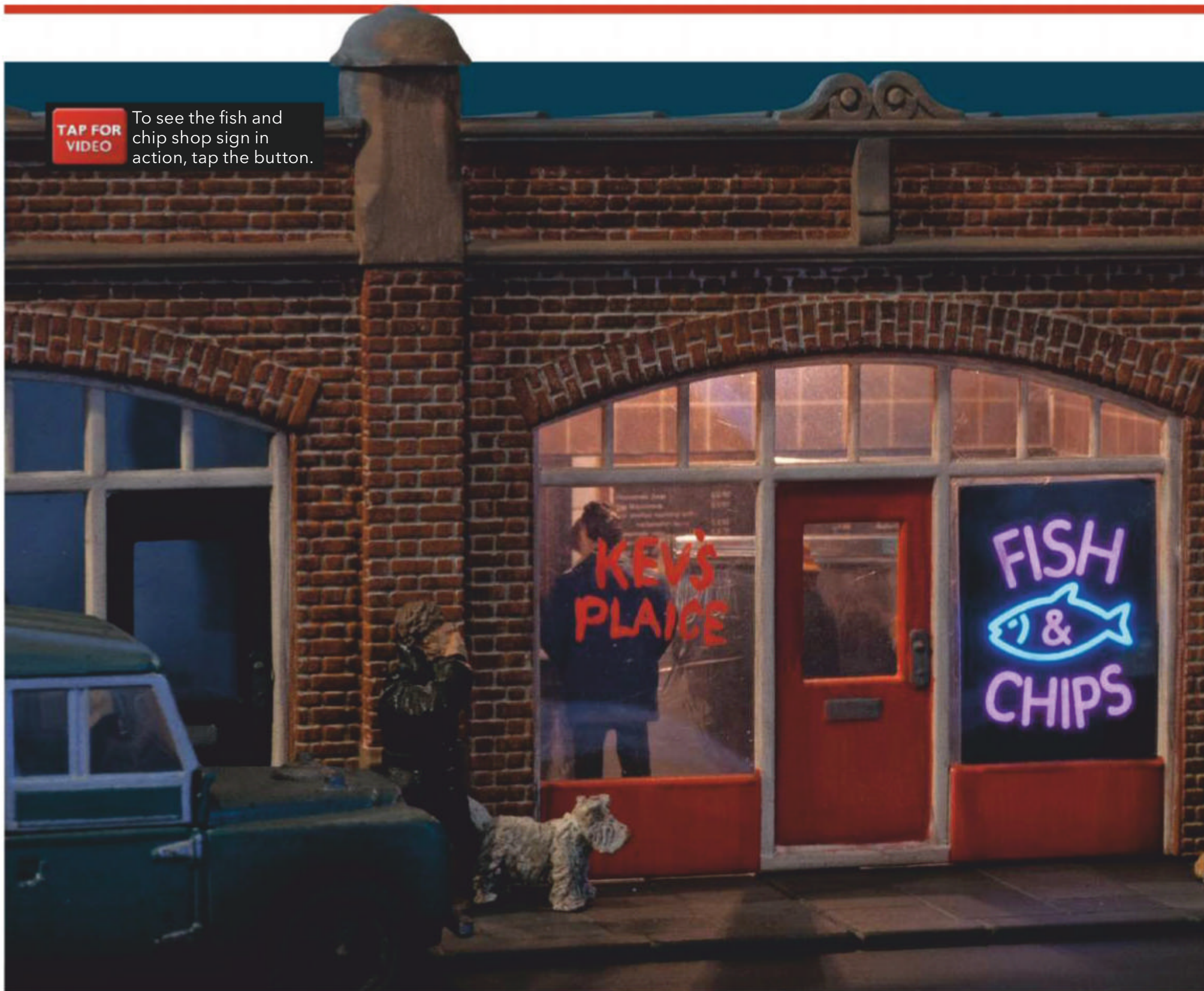
9 Drill a 10mm hole in the baseboard where the figures are to be positioned and thread the wires through the hole and underneath the baseboard. I held the figures and tripod down with a little clear tape and a blob of Deluxe Materials Tacky Wax on the base of the feet.



10 With everything wired you can test that your alterations haven't disrupted the current flow. Here, two of the cameras are flashing simultaneously - arguably the photographers should be wearing high-viz jackets at this event so consider where you are placing them.

TAP FOR VIDEO

To see the fish and chip shop sign in action, tap the button.



HOW TO

MODEL A FISH AND CHIP SHOP

George Dent creates an atmospheric rendition of a British favourite - the humble 'chippy' - complete with a flashing neon sign.

Friday night's tea from the local fish and chip shop was a regular family event during my youth, and these quintessentially British culinary establishments are still a common sight in towns and villages.

While building a miniature 'chippy' may not break new ground in modelling, adding a convincing interior and a working neon sign makes it a much more interesting prospect.

00
GAUGE

8
hrs



Indeed, I've had a miniature flashing neon-style sign for a fish and chip shop knocking about my workshop for years, although I never managed to find the time to build the 'chippy' I originally had in mind. The plan was then forgotten for a while until

the sign re-emerged while I was searching for something completely unrelated.

From the Express Models range, the package consists of a flat plastic sign connected to a small circuit board via a ribbon cable. The PCB contains an array of components, including an on/off switch, and power comes from a pair of AA-type batteries. Installation really couldn't be easier, as all of the wiring is taken care of, all



As evening falls, the tiled and decorated interior of the fish and chip shop becomes more visible. The yellowish glow of the traditional miniature filament bulb adds extra atmosphere.

you need to do is fix the sign into a window and switch it on.

When activated, this wonderful little sign flashes between the red lettering and the blue fish in a most realistic fashion. It's clearly visible in daylight, but it looks even more authentic in lower lighting conditions.

This particular sign no longer appears on the Express Models website, but a variety of similar units are still available that would suit diners, cafés, pizza parlours, motels and other - slightly seedy-looking - establishments.

A set of Wills station forecourt shops formed the basis for the structure, with the low-relief kits being 'fleshed out' with scratchbuilt walls and a roof. Interior details from a couple of downloaded Scalesscenes kits helped to bring the scene to life, with the Country Pub kit providing most of the detail, including tiled surfaces, a wall-mounted menu and framed nautical-themed images.

Coupled with a scratchbuilt 'stainless steel' fryer and counter, the finished 'chippy' looks really convincing, especially when the neon sign starts flashing. I can almost smell the battered haddock...

STEP BY STEP



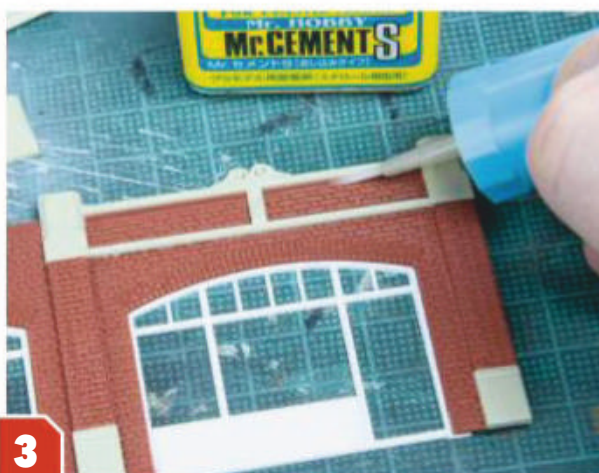
1

Express Models' package consists of a circuit board with on/off switch, battery holder and the small, flat neon-style sign. This older sign requires two AA-type batteries, but more recent products run on smaller AAA cells.



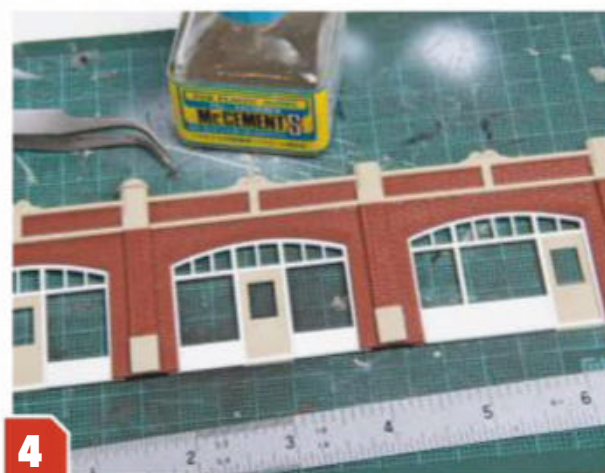
2

Having pondered what type of building to employ, I found that the sign fitted precisely into a window from a Wills station forecourt shop kit. However, the kits provide a frontage only, so some scratchbuilding will be needed.



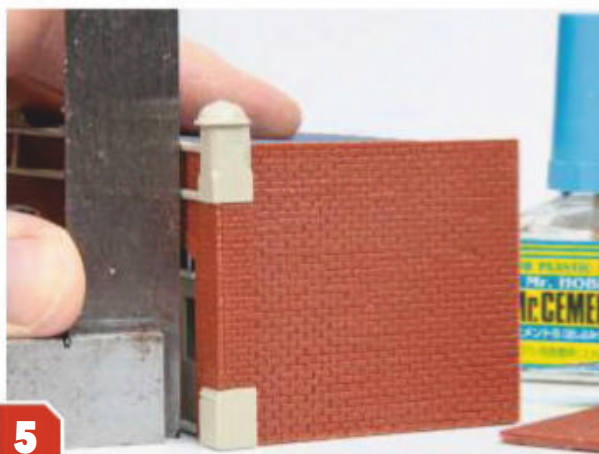
3

Two packs of Wills shops were purchased to create a row of four individual premises. Assembly is simple, with the masonry built up over several layers and the door/window frames set behind.



4

Care is needed to get a long row of shop fronts straight and true, working on a truly flat surface and checking the lower edges with a steel rule. Allow plenty of time for the cement to cure at each stage.



5

Side walls were created with Wills embossed brick sheets, ensuring that the corners were square and perpendicular by checking with a steel set square. The walls fit nicely into the inner corners of the frontage.



6

As the rear of the shops won't be visible, a basic wall was created from 1mm thick plastic sheet. Internal walls were also created and Wills corner fillets were employed to add strength.



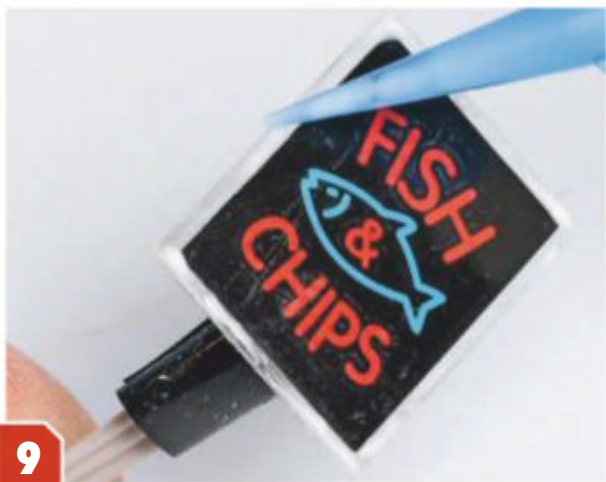
7

The roof was created with sheets of Wills batten roofing. The rear wall was formed to a height that would allow the roof to sit at a realistic slope. This resulted in a very strong, resilient structure.



8

After painting the exterior, the interior walls were decorated with printed detail from a Scalesscenes pub kit, affixed with double-sided tape. This contained plenty of tile detail, wall-mounted menus and framed pictures.



9

With the interior decorated and the windows glazed, the neon sign could be installed. A tiny bead of Deluxe Materials Glue 'n' Glaze was applied around the front edge of the sign.



10

The glue was left for a moment to turn tacky before the sign was placed into position. The glue sets crystal clear, so the bond to the inside of the clear styrene window is virtually invisible.



Is the little dog loitering outside in the hope of somebody sharing their fish cake?



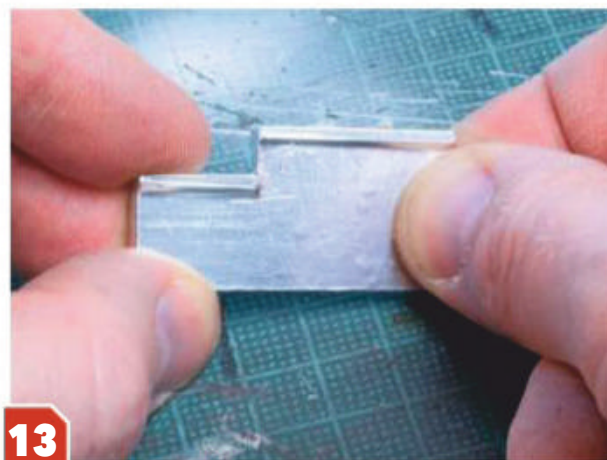
11

A single grain of wheat filament bulb was suspended from the inside of the roof with a strip of insulation tape and the cables guided towards the rear of the building, where they'll be hidden.



12

A simple fryer and serving counter was created from off-cuts of styrene, using a 'OO' figure as a guide to achieve the correct height. Kitchen foil was used as an overlay, making a quick alternative to metallic paint.



13

Double-sided tape was applied to the foil and the material was spread carefully over the plastic former. Fold over the corners and counter tops carefully to avoid wrinkling or tearing.



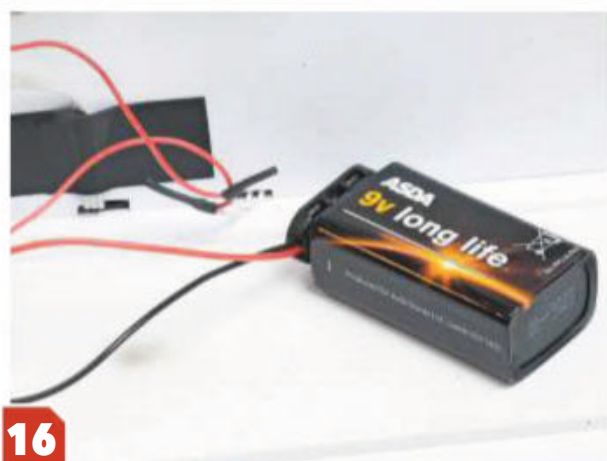
14

A Scalescenes interior detail set provided the perfect tiled floor, as well as timber flooring for the adjacent shop units. The foil-wrapped counter was also fixed to the base and a selection of figures installed.



15

With the shop building placed into position on the base, the lighting cables were passed to the rear of the scene. The neon sign's circuit board and battery pack were connected.



16

To keep things simple, the single miniature light bulb was powered from a 9V PP3 battery via a clip-on connector. When the rest of the shops are eventually occupied I'll upgrade to a Gaugemaster 12V DC supply.

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TAP FOR VIDEO

To see the digger in action, tap the button.



HOW TO

ANIMATE A JCB

Graham Goodchild creates a working cameo scene, based around a die-cast JCB.

Building sites or maintenance yards are ideal scenic elements with which to fill a spare corner of a layout. They can be almost any shape or size, allowing them to fit into awkward areas. But rather than pose static items of plant machinery, how about making some of them move, just like the trains that pass alongside?

I decided to create an animated bulldozer, taking an off-the-shelf 1:76 scale die-cast vehicle and a set of simple mechanical



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AVAILABILITY Oxford stockists or www.oxforddiecast.co.uk



6 hrs



components - combined with a little scratchbuilding - in order to create something eye-catching for a 'OO' layout.

The main requirement was that the base of the builder's yard had to be large enough to accommodate a geared motor mounted beneath the baseboard, as well as providing

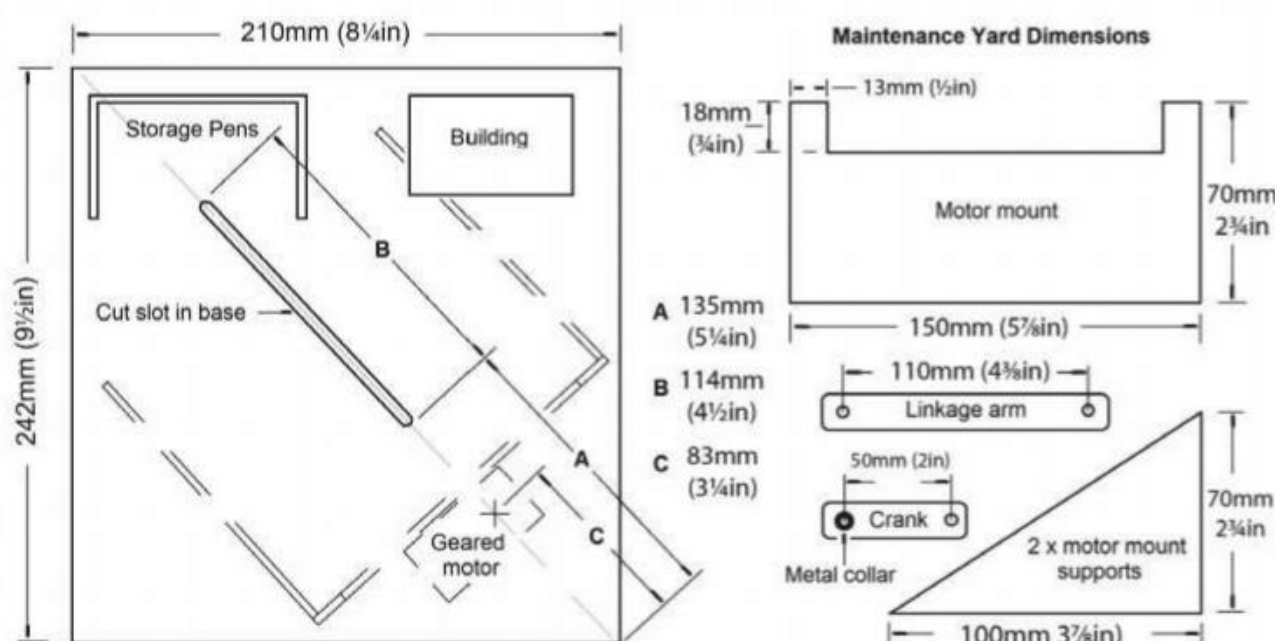
adequate space for the vehicle to move back and forth. An electric motor kit was obtained from Hobby's (see panel, right), which provided most of the necessary gears and equipment. It's worth noting that the same motor and crank arrangement described here can also be employed on a layout of any scale.



The star of the show is an Oxford Diecast JCB backhoe digger fitted with a bulldozer blade and a rear bucket, both of which can be posed in any position. In the real world, this type of vehicle might be seen loading or unloading aggregates or stone ballast. For model purposes, the digger is made to travel backwards and forwards in a straight line between a stationary lorry and storage. The chassis of the JCB is screwed to a sliding linkage arm, which is attached to a rotating motorised crank mounted under the base of the yard.

CONSTRUCTION

The base of the maintenance yard, including the support for the geared motor and the crank arm arrangement, are constructed from 2mm (0.080in) thick styrene sheet. A slot, just wide enough to allow the JCB's mounting screw to run



Above: The principal dimensions of the maintenance yard and the crank mechanism. The position of the geared motor shaft/crank, and length of the JCB guide slot A, B, and C, are plotted from a diagonal line drawn between the two opposite corners of the yard base.

freely within, was carefully drilled and cut as straight as possible.

The geared motor was fitted to a simple but sturdy styrene support bracket, and two hinged rotating crank arms were also fabricated from the same 2mm thick styrene. The pivot was formed from a nut and bolt, with a washer placed between the two cranks to allow for free movement. A pair of nuts allow for a degree of slack between the cranks, without the parts working loose.

The crank arm is fastened to the geared motor output shaft with a brass screw-type collar, fixed to the end of the arm with cyanoacrylate or epoxy glue. Measure and mark the position of the geared motor support assembly on the underside of the yard base to check the movement and alignment of the rotating crank and the sliding linkage arm. The motor support assembly can then be glued into position.

JCB ATTACHMENT

The chassis on the JCB model is fastened to the body by two small screws. The front screw needs to be removed and replaced with a longer screw of the same thread size. This longer screw is used to attach the model through the slot in the yard base and into a pre-drilled hole in the end of the sliding link arm.

The upper, redundant screw threads are filed away to leave a smooth finish where the screw is in contact with the sides of the slot. The model should pivot freely on the link arm. Three AA batteries, totalling 4.5V, with all of the supplied gear cogs installed in the gearbox, will propel the JCB at scale speed.

Coarse sandpaper was glued to the yard base to replicate stone chippings, and also to grip the freely rotating wheels so as to prevent the JCB from skidding sideways. As an aside here, I found that one pair of wheels on my particular model did not rotate freely. This was remedied by gripping the steel axle with a pair of pliers and gently twisting the offending wheel clear of part of the body which was obstructing it.

What you will need

USEFUL MOTORISING KIT

The power unit employed in this project is available as a full kit, containing a multi-ratio geared electric motor, a selection of drives (worm, rack and pinion, chain) and couplings, dry cell battery and connectors, toggle switch and various mounting nuts and bolts.

Ref. No. 917D14

Price: £47.99

Availability: Hobby's

Tel: 0208 761 4244

Web: www.hobby.uk.com

TOOLS

- ◆ Knife
- ◆ Tweezers
- ◆ Mini drill and bits
- ◆ Mini screwdrivers
- ◆ Needle files
- ◆ Pliers
- ◆ Liquid poly cement
- ◆ Cyanoacrylate glue

DRIVER WANTED

I'd recommend adding the driver before modifying the vehicle for attachment to the sliding link arm. Prise off the roof of the cab with a knife to gain access to the clear glazed window moulding, then cut this away to access the driver's seat. The chosen figure may have to be trimmed in order to fit into the cramped seat. I used Blu Tack to secure the figure and to reattach the cab roof.

SCENIC WORK

Once the motor and JCB were working satisfactorily, the yard scene was completed by adding suitable buildings, fencing and gates. Stone ballast was placed in the storage pen and fastened with diluted PVA glue. A finer grade of ballast was then sprinkled over the ground where the JCB travels, while grass scatter material was used to replicate weeds, especially around the fence posts. Other items, such as oil drums, cable drums and figures, were glued in place to add the final touches.

STEP BY STEP



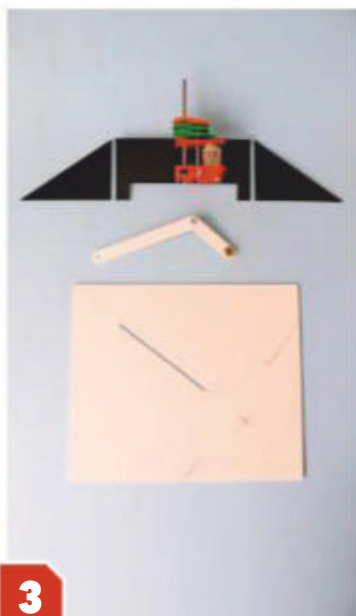
1

Oxford Diecast's 1:76 scale JCB backhoe loader is a lovely model and features a bulldozer and rear bucket attachment, both of which are poseable.



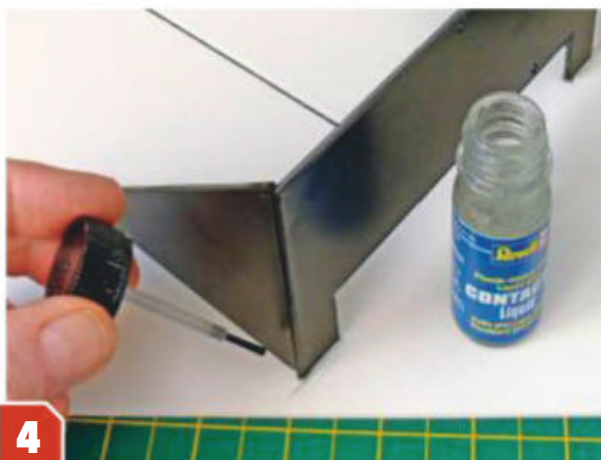
2

Various yard building kits, fencing, figures and other scenery items are readily available to adorn a typical trackside maintenance yard.



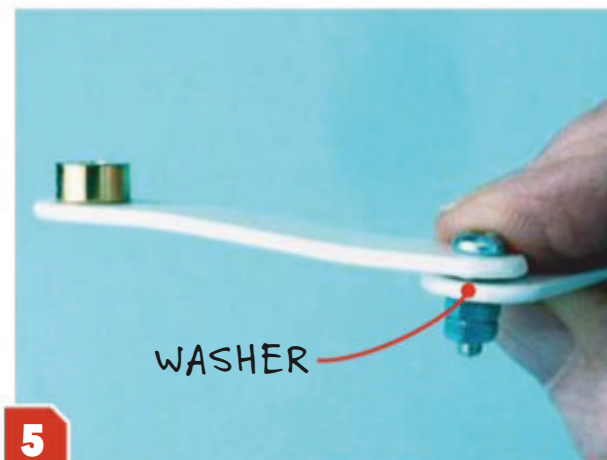
3

The yard base was cut to the required size from 2mm (0.080in) thick styrene sheet. The slot along which the JCB mounting screw is to travel can be marked and cut. The motor support bracket was also cut from 2mm thick styrene.



4

Liquid polystyrene adhesive was used to 'weld' the styrene components together. Check that the motor mounting bracket parts are standing squarely in relation to the base with a set square, then leave overnight to harden.



5

The two arms of the crank were cut from 2mm styrene sheet, with a small bolt, washer and two nuts forming the fulcrum. A screw collar is fixed to one end with cyano, which is then attached to the output from the motor.



6

The Hobby's geared motor unit (see panel) is assembled and bolted to the styrene mounting bracket. The sliding link arm is attached to the output shaft with a grub screw and positioned beneath the narrow slot in the base.



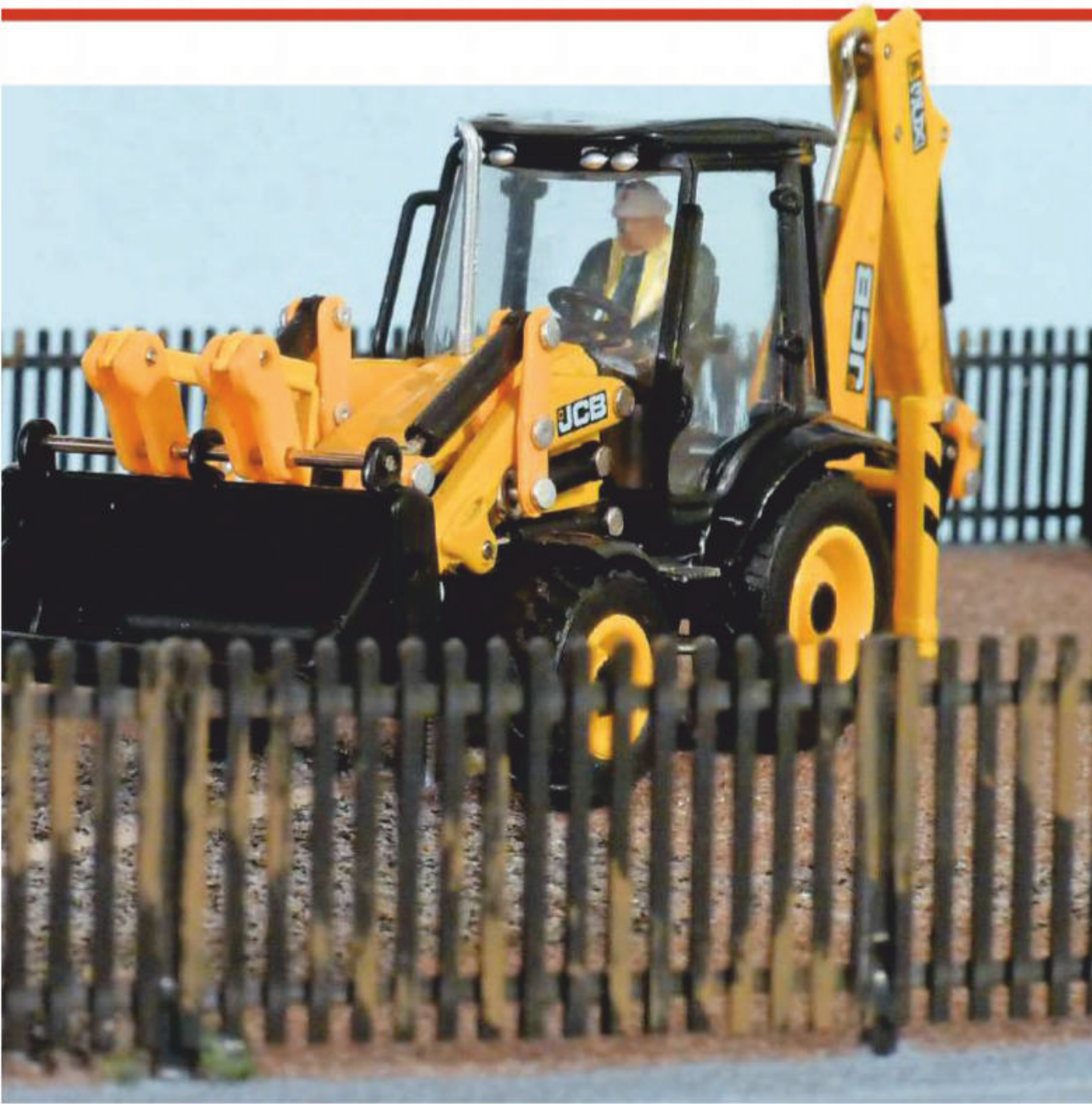
7

This view of the base shows the linkage arm in the extended position. The protruding gear shaft can be cut short, if desired, or used to power an additional working feature.



8

A sheet of coarse aluminium oxide sandpaper was glued to the yard base to replicate a gravel surface. The rough texture will also provide grip for the JCB's tyres and ensure that they rotate as the vehicle moves.



Can you dig it?

The star of the show is this 1:76 scale Oxford die-cast JCB backhoe digger which is adapted to automatically travel backwards and forwards via a motorized crank mechanism.



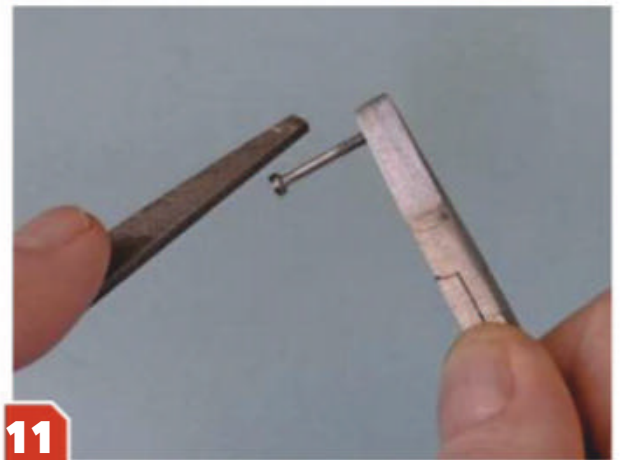
9

Cut a slot in the sandpaper to match that on the motor base. Remove the small screw from the front end of the JCB chassis with a miniature cross-head screwdriver. Keep the screw safe in case you decide to swap the vehicle in future.



10

A 22mm long bolt, of the same diameter as the chassis fastening screw, was sourced. This will be used to attach the JCB to the sliding link arm.



11

Part of the attachment bolt's thread was carefully filed away to ensure that it moves smoothly within the slot cut in the yard base. Be sure not to damage the area of thread needed to secure it to the JCB chassis.



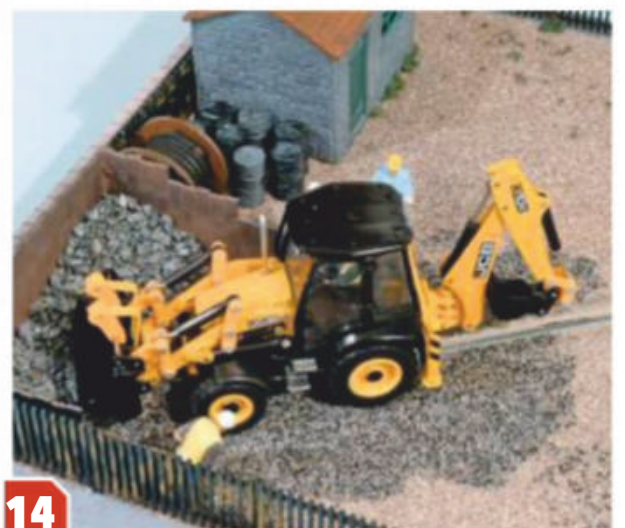
12

Secure the JCB to the link arm, then hook up the motor to the battery and check that everything works. When you're happy that things work, the office building, boundary fence and other scenic items can be installed.



13

In order to access the interior of the JCB cab, the chassis has to be removed and the cab roof cut out. A plastic Bachmann Scenecraft figure required extensive modification before he'd fit within the tight confines of the cab.



14

With the scenic work complete, the reassembled JCB can be remounted to the sliding link arm and put to work.

Skills Station

Welcome to the second part of Module One of Skills Station. Whether you're a beginner or an experienced modeller looking to hone your skills,

our team of experts will split a modelling task or skill into easy to follow, bite-sized chunks, busting myths along the way. Join our Facebook group and

you can post your pictures and chat to fellow modellers all learning the same skills. We'll offer friendly feedback and tips to make you even better!



Richard Foster Editor



Join our group on Facebook by searching for 'Model Rail Skills Station'



THE ESSENTIAL GUIDE TO AIRBRUSHING

Pt 2: Air supplies & equipment

Airbrushing expert **George Dent** explains why an airbrush can only perform correctly when fed from a reliable air supply.

Join Skills Station at www.model-rail.co.uk/skills-station

AIR SUPPLIES



Even the fanciest airbrush can only operate effectively when coupled to a consistent air supply. Fluctuations in pressure will affect the paint flow, resulting in a poor

finish. We also need to adjust the pressure to suit certain tasks, as some paints behave better with a lower air pressure than others.

The majority of modelling tasks demand an air pressure of less than 20 pounds per square inch (psi). However, even small compressors often feature an unregulated output of around double that pressure. Such force makes close-up working impossible and leads to the paint drying before it has landed on the model's surface, producing an 'orange peel' effect. The air must also be free from water vapour, oil or other

contaminants. A simple filtration system is, therefore, vital.

Electric compressors are the most reliable air source and should be considered a long-term investment. Having confidence in your air supply allows you to concentrate solely on what's happening with the airbrush. Messing around with a frozen propellant can or cheap, overheating compressor will put anyone off airbrushing. Many bargain-priced compressors have a limited duty cycle, meaning that they're likely to cut out every few minutes in order to cool down. This may not seem important when spraying small models, but we also need plenty of air when cleaning out the airbrush.

CANNED PROPELLANT

Canned propellant is the most basic source of air and, in the short term, it's also the cheapest - and most portable - option. The air hose is screwed onto the can via a special connector that may also provide a crude method of pressure control.

However, as anyone who has tried canned propellant will attest, it can be a frustrating experience. It's also an expensive option in the longer term. After a couple of minutes' use

cans tend to freeze up, leading to the air pressure - and subsequent paint flow - fluctuating wildly, with horrific results!

Factor in the need for air while cleaning and servicing an airbrush and it can feel like your money is being wasted every time you press the airbrush's trigger. There's the inevitable temptation to skimp on cleaning, which has its own detrimental effects on the airbrush. In short, they're best avoided!



ELECTRIC COMPRESSORS

Compressors fall broadly into two distinct groups, defined by how the air is compressed...

Diaphragm Compressors

Many smaller and cheaper compressors work on this principle, whereby air is sucked into the machine via a diaphragm that is oscillated by an electric motor. The air is then forced into a small chamber (hence the term 'compressor'), before being pushed into a reservoir tank for storage or emitted straight down the hose to the airbrush. Alas, the flexible diaphragms are prone to wearing out and this type of compressor is more likely to need regular rests to avoid overheating.



Ultra-compact diaphragm compressors are available for portable use, powered by mains electricity or rechargeable batteries. Both are best suited to small, quick painting tasks and will fit easily into a toolbox.



Larger, more powerful diaphragm compressors are available, with or without reservoir tanks.

Piston Compressors

A piston, driven by an electric motor, draws air into a cylinder via a one-way valve. On the upwards stroke, the air is compressed by the piston as the inlet valve closes. An outlet valve then releases the air into a reservoir tank or straight down the hose to the airbrush.

Modern machines are self-lubricating and

virtually maintenance-free, without the risk of oil contaminating the air supply. They're usually quieter and more efficient than diaphragm compressors and offer longer duty cycles, with less risk of overheating.

A quality, piston-driven machine should last for decades, especially one fitted with an air tank.

1: Sparmax's ARISM Viz is one of the best budget compressors, boasting all of the essential features.

2: Cased compressors reduce the risk of damage to exposed filters and valves. Some also feature smart switching technology, reducing wear on the motor.

3: Piston compressors come in a range of sizes, such as this ultra-compact unit that sports a pressure regulating knob, but no gauge.

4: For more intensive use, some compressors feature twin pistons to produce more air, faster. This Power Jet Plus unit is great when working for longer periods and the handle doubles up as an air tank.

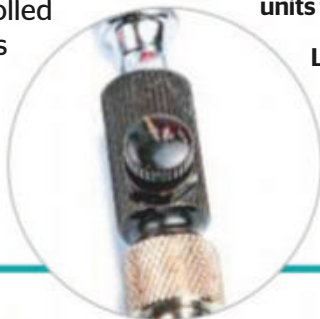


PRESSURE REGULATION

As already mentioned, some way to control the air pressure is vital and, thankfully, most modern compressors aimed at the modelling market now offer some form of control as standard, or as an optional extra. Control may be in the form of a knob on the compressor or as part of an integral moisture filter and/or bleed valve (see below) fitted to the

compressor's air outlet.

Alternatively, an 'in-line' option is available, consisting of small connectors that fit between the airbrush and hose. These work by bleeding a controlled amount of excess air out of the hose, thus reducing the pressure at the airbrush.



Above: Combined pressure regulators, gauge and moisture filters are available as separate units that simply connect into the air line.

Left: A cheap alternative is to fit an in-line pressure control valve between the airbrush and hose.

Right: Some form of pressure regulating control is a must, while a pressure gauge is desirable.



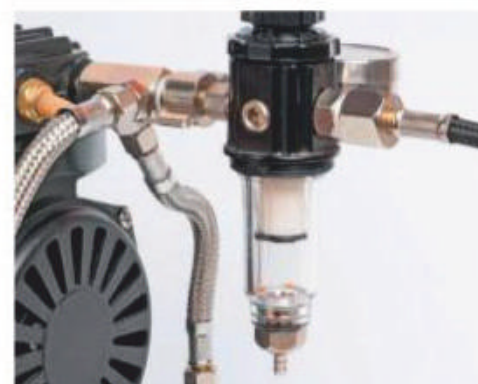
MOISTURE TRAPS

The production of compressed air invariably creates heat and, once the air passes through a hose or into a tank, it begins to cool. Condensation then forms and this must be intercepted before it reaches the airbrush. Moisture traps are fitted to the outflow point of some compressors, while they're also available separately.

The cheapest option is a small in-line filter that connects between the airbrush and hose, providing a handy extra grip for the hands. When moisture is observed within the filter, the purge valve can be depressed to expel it.



Small, in-line moisture filters offer a cheap option.



Moisture filters intercept condensation, preventing it from entering the airbrush and interfering with the paint.

RESERVOIR TANKS

When the air is moved directly from a diaphragm or piston to the airbrush, it will have a discernible 'pulsing' effect. In extreme cases, this can lead to uneven paint flow. However, in many decent compressors, this is only a minor issue and the presence of a pressure regulator valve usually smooths out the worst of the unevenness.

Compressors fitted with

integral reservoir tanks provide a much smoother, pulse-free flow of air at all pressure settings. Automatic switching means that the motor only kicks in as the tank needs replenishing, thus minimising wear and keeping noise and electricity consumption to a minimum. Tanks aren't essential, especially if you're only likely to be working on smaller models or for shorter periods, but those planning on spraying for longer periods will find them beneficial.

A compressor with a reservoir tank offers a smooth airflow and keeps noise and mechanical wear to a minimum.

BLEEDING

When switched on, a compressor without a reservoir tank will be producing a constant supply of air. When the airbrush isn't working, the air must be released from somewhere, or the hose will burst. Automatic bleed valves are fitted to most modern compressors, allowing excess air to leak away.

However, it's worth checking that your compressor has this facility - if not, special adaptors are available that fit onto the air hose connector.



The automatic bleed valve on this compressor also acts as part of the pressure regulator and moisture filter drain.

AIR HOSES

Vinyl hoses, especially coiled hoses, are highly flexible and help the air within to cool after leaving the compressor. This increases the likelihood that condensation will occur, so adding an extra in-line moisture filter between the hose and the airbrush is recommended. Braided hoses are a little heavier and less flexible than vinyl, but they're more resilient and can withstand being trodden on.

Good quality hoses are fitted with a rubber O-ring at each connector and this should provide an airtight seal. Over-tightening can damage these seals, which is why they're often supplied with knurled connectors for fastening by hand. Hoses with hex-type connectors should be tightened with a suitable spanner although, again, it's important to avoid over-tightening. If air is found to be leaking from connectors (you can usually hear it), add a little PTFE sealing tape to the threads. Adaptors are available to match different compressors and airbrush thread sizes.



Vinyl hoses offer greater flexibility but are more prone to damage than braided airlines.

FUME EXTRACTION

Spraying any form of paint through an airbrush or aerosol invariably creates a cloud of atomised paint and a mixture of harmful fumes. Solvent-based paints are the worst offenders, especially as a number of hobby enamel formulas may still contain lead chromate. Most acrylics are markedly less harmful, but the fine particles should still be avoided.

Wearing a facemask is one way of protecting our lungs but, for a truly safe working environment, some form of vacuum extraction is preferred, especially if you envisage spending hours spraying larger models. Professional-grade spray booths aren't cheap, but a number of low-cost units aimed at hobby use have emerged, many of which offer the convenience of folding away after use. Extractors are supplied with flexible hoses that can be passed through a nearby window. Alternatively, a fixed duct can be fitted into a wall if required.



Above: A spray booth is recommended when airbrushing regularly. Be sure to replace the filters at the specified frequency.

Left: At the very least, airbrush users should always wear a suitable facemask, fitted with replaceable filters specified for use with paints.



WHAT NEXT?

Next month, we look at how to mix and thin paint correctly before spraying.

Show us what you've learnt on our Facebook group - <https://bit.ly/2TEmHKA>

MASTERCLASS

Looking at locomotives in detail

Class 50 (1994-2019)

It should have been the end of the '50s' 25 years ago... but it wasn't. **Pip Dunn** brings the story up to date.

A

ll 50 Class 50s were still in traffic at the start of 1987. It was a remarkable feat for a 1960s BR diesel

fleet not to have suffered one withdrawal, but that record only lasted until February '87, when 50011 *Centurion* was condemned.

The writing was on the wall for the Class 50.

English Electric's Type 4 Co-Co was a good design but it had one major shortcoming – there were only 50 of them. It was perhaps no surprise, when BR split its operations into business sectors in the mid-1980s that they were deemed 'non-standard'. Parts became harder to source and fewer drivers knew how to operate them, when compared to, say, the Class 47s.

The cull was swift and when January 1 1992 dawned there were just four left in traffic: 50029 *Renown*, 50030 *Repulse*, 50033 *Glorious* and 50050, running without its *Fearless* nameplates.

The quartet were based at Plymouth Laira, where depot staff planned to resurrect a fifth, GWR150 green 'pet' 50007 *Sir Edward Elgar*, using parts from 50046 *Ajax*. 50019 *Ramillies* and 50035 *Ark Royal* had already been sold to preservationists and the remainder were dumped.

The last '50s' were employed on the 'Mule', the nickname for the ex-LSWR main line between London Waterloo and Exeter,

because there were not enough Class 47s available to cover the timetabled diagrams. 50029 failed near Salisbury on January 2 1992 and never worked again. The remaining trio were already on borrowed time.

50033 hauled the last regular 'Mule' working on March 24. BR held a special farewell day on May 24, with 50007 and 50050 being used on 'Mule' services between Exeter St David's and Salisbury.

That wasn't quite the end for main line '50s'.

50007, 50033 and 50050 were retained for charters and worked a handful before looming privatisation

“ It was a good design but it had one major shortcoming – there were only 50 of them ”



Above: The end? 50050 *Fearless* and 50007 *Sir Edward Elgar* rattle the foundations of Basingstoke with Pathfinder Tours' London-Penzance 'The 50 Terminator' on March 26 1994. After several years on borrowed time hauling charters, this was the last time Class 50s were expected to work on the national network. D. PYE/COLOUR RAIL

Left: A new era dawns for Class 50s on the main line: 50007 and 50049 will wear GBRf's distinctive blue colour scheme as part of a new hire agreement between it and the Class 50 Alliance. GBRf

Who could have imagined that 50 years since they were introduced, 30 years since the first was withdrawn and 23 since BR withdrew the last, six '50s' - 50007/017/026/044/049/050 - would still be main line-registered and able to star at an Old Oak Common open day? The date is September 2 2017. ANDREW PLUMMER/ALAMY



put paid to such frivolities. 50007 and 50050 worked the farewell BR tour – a Waterloo-Exeter St Davids-Penzance-Paddington trip – on March 26 1994. Network SouthEast lasted just five days more before it was replaced by new 'shadow franchises' on April 1.

How many of the enthusiasts who turned out on March 26 ever expected to see a '50' grace the main line again – and in the livery of a privatised freight company to boot?

Well, that's exactly what happened.

Surprisingly, there was only a three-year hiatus in Class 50 main line running. BR had considered the running of preserved diesels on the national network to be a 'no no'. The privatised railway was a little more flexible, and Pete Waterman's Class 46 D182 *Ixion* made its main line debut in 1995. It was quickly followed by ➤

The Class 50 Alliance completed major work on 50031 *Hood* in 2016 by painting it in InterCity livery, a scheme that some '50s' could have been given in the mid-1980s. 50031 was rededicated by the HMS Hood Association on September 17 2016. The smart looking '50' heads away from Kidderminster at the Severn Valley Railway on May 19 2017. COLIN UNDERHILL/ALAMY



MASTERCLASS

'Deltic' D9000 *Royal Scots Grey* in 1996.

Then, in 1997, 50031 was passed for main line operation. *Hood* made its first trip from Birmingham International to Plymouth on November 1. That wasn't bad for a locomotive that hadn't even had a main line test run! What makes it even more remarkable is that, in 1998, 50031 was being used on revenue-earning main line trains.

Train operating company Valley Lines had hired Class 33/2 D6593 to work a daily Rhymney-Cardiff passenger turn, but it failed in June 1998. 50031 was hastily hired to provide cover for it and the Type 4 continued to work in South Wales until early 1999. The hire agreement was ended when Railtrack informed Valley Lines that it should hire traction from freight operating companies and not a 'volunteer-driven preservation group'.

Class pioneer 50050 returned to the main line in 1998. Owned by Dutch enthusiast Harry Schneider, the erstwhile *Fearless* was taken under the 'care' of Deltic 9000 Locomotives Ltd. Work for 50050 was limited, but along with a couple of charters it had the briefest of hire periods with Anglia Railways. On July 10 1999, it worked passenger trains between – of all places – Norwich and Great Yarmouth, which was the first time a '50' had worked into East Anglia. It then had a jaunt along the former Great Eastern main line from Norwich to London Liverpool Street on September 19. Those were its only Anglia workings.



Above: BR painted only two Class 50s in freight/departmental liveries. One was 50149 *Defiance*, which received Railfreight General sub-sector markings and the other was 50015, which received Engineer's 'Dutch' grey and yellow. This scheme has never been revived but 50017 *Royal Oak* received Railfreight General livery in preservation in order to complement 50149. 50017 is has recently found a home at the Great Central Railway. MARTIN LOADER

ON THE NOSE

The Class 50 fleet had been refurbished in the early 1980s and, as part of the work, gained the distinctive circular sealed beam headlight in the middle of the nose.

The Fifty Fund had bought 50044 *Exeter* as a source of spares, but found that it was in excellent condition. It was restored to original condition as D444 and the headlight was removed. High-intensity headlights are mandatory for main line running and so, when D444 took to the ➤

Below: The Class 50 Association likes to shock enthusiasts with its livery choices. It painted D444 in BR two-tone green in 2004. Plans to include full yellow ends and cabside window frames were never realised, but *Exeter* did received nameplates with the same typeface used Western Region Class 47s. MARTIN LOADER



The LMS Class 50s?



The somewhat strange sight of a red 50017 and Fragonset Class 47 47703 pass Bredicot in Worcestershire on June 24 2000. MARTIN LOADER

The November 1998 edition of *Steam Railway* broke a near-fantastical story that Venice Simplon-Orient-Express had approached the National Railway Museum to re-streamline 'Duchess' No. 46229 *Duchess of Hamilton*. The Stanier 4-6-2 would be returned to its original condition, restored to working order and then used as the flagship for VSOE's northern operations. It would be paired with refurbished Mk 1 and Mk 2 coaches and a Class 50 would run in the formation, not only to provide train heating but also insurance in case the 'Duchess' failed... all painted in LMS 'streamlined' livery!

The initial plan was to use 50008 *Thunderer*, which Pete Waterman had recently sold to VSOE. In the end, it was John Kennedy's 50017, restored to main line standard by Project Defiance in 1999, that was repainted into LMS maroon with gold stripes. It even worked a few trains for VSOE wearing this bizarre scheme.

The whole plan came to nought. 50017 was finally restored to Network SouthEast livery at the Plym Valley Railway and it would take a further

decade before 'Hamilton' was re-streamlined, albeit as a static exhibit.

Meanwhile, poor old *Thunderer* was prepared for export to Peru. Thankfully, this never happened but it did receive a coat of

maroon paint, was relieved of its multiple working equipment and vacuum brakes and had its headlight plated over. It was later sold to Garcia Hanson and fully restored.



50008 looks particularly unloved as it languishes in Wansford yard at the Nene Valley Railway, wearing a faded coat of maroon paint. *Thunderer* was, thankfully, never exported to Peru and is now back in action on the main line. PIP DUNN

MASTERCLASS



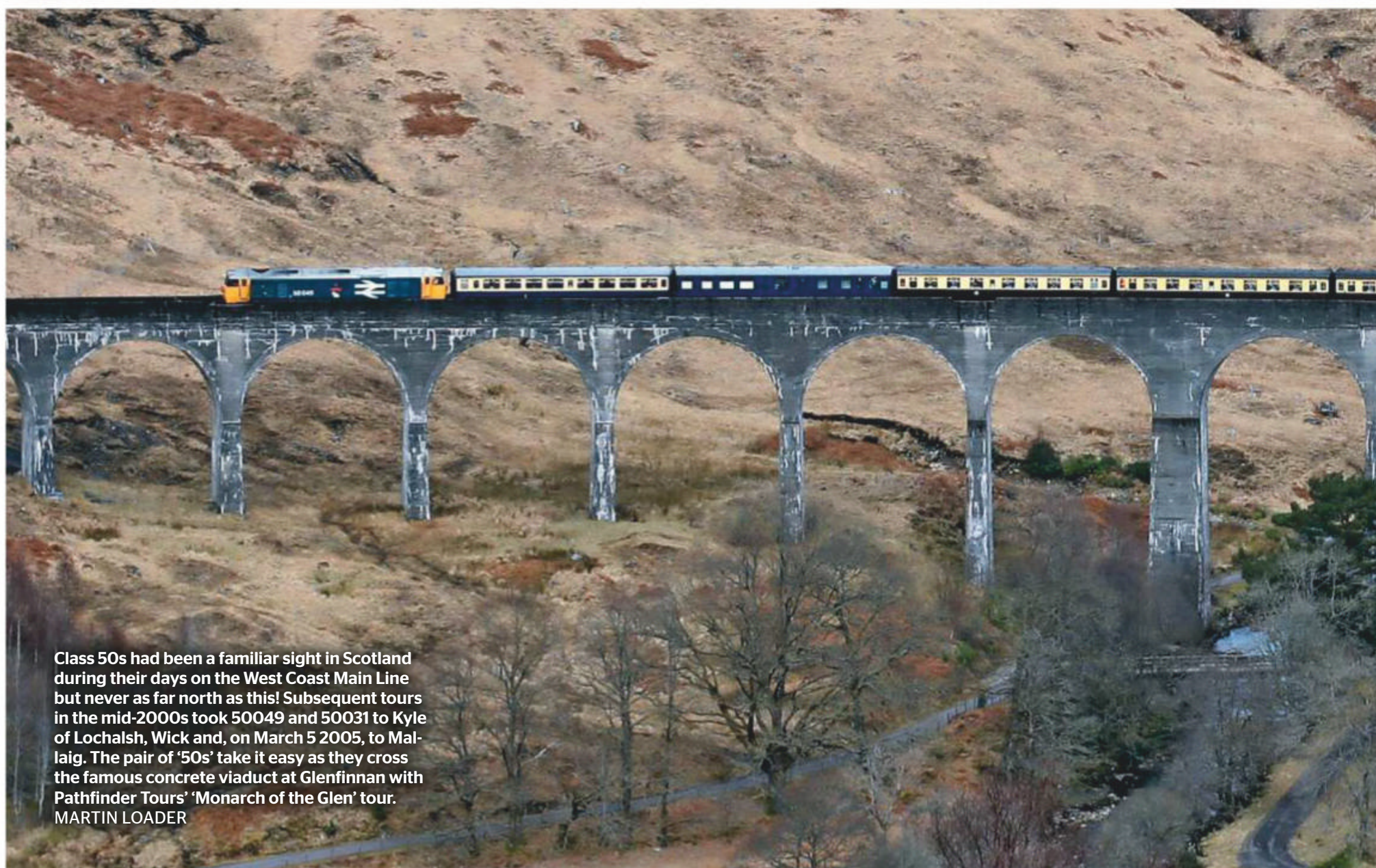
Left: November 1 1997 is a day that most '50' fans will recall with much fondness - 50031 *Hood* became the first preserved Class 50 to return to the main line. The immaculate Type 4 passes Totnes with Past Time Rail's London-Plymouth 'Pilgrim Hoover' railtour. In a further unexpected move, *Hood* would haul revenue-earning trains once again with train operator Valley Lines. MARTIN LOADER

national network again, on September 4 1999, it had a crude headlight fitted inside the cab window! It joined the Fifty Fund's 50031 on charter work and occasional hire jobs to Valley Lines.

50049 *Defiance* had led an interesting BR career. It had been fitted with low-g geared Class 37 bogies to see if the '50' could be used on freight traffic. The conversion remained a one-off, but *Defiance* had garnered enthusiast attention owing to its Class 50/1 number (50149) and Railfreight General grey livery.

It had been bought by Project Defiance in 1992 and restored as 50149 at the West Somerset Railway. Its owners moved the locomotive to the Severn Valley Railway in 1999, where it merged with the Fifty Fund to become the Class 50 Alliance. Sharing resources and support crew, 50049 made its main line return in 2000.

The main line returns of 50050 and 50017 (see p65) were initially brief. *Fearless* had, by the end of 2000, effectively been retired again. Caretaker company Deltic 9000 Locomotives Ltd also agreed a deal to take custody of 50002 *Superb* but its main line ➤



Class 50s had been a familiar sight in Scotland during their days on the West Coast Main Line but never as far north as this! Subsequent tours in the mid-2000s took 50049 and 50031 to Kyle of Lochalsh, Wick and, on March 5 2005, to Mal-laig. The pair of '50s' take it easy as they cross the famous concrete viaduct at Glenfinnan with Pathfinder Tours' 'Monarch of the Glen' tour. MARTIN LOADER

The PRESERVED '50s'

No.	Name	Withdrawn	First moved to	Current base	Current owner
50002	Superb	September 1991	Paignton & Dartmouth Railway	South Devon Railway	Devon Diesel Group
50007	Sir Edward Elgar/ Hercules	March 1994	Midland Railway – Butterley	GBRf	Class 50 Alliance
50008	Thunderer	may 1992	East Lancashire Railway	Washwood Heath depot	Garcia Hanson
50015	Valiant	May 1992	East Lancashire Railway	East Lancashire Railway	Bury Valiant Group
50017	Royal Oak	September 1991	Thingley Junction, near Chippenham	Great Central Railway	Boden Rail
50019	Ramilies	September 1990	Spa Valley Railway	Mid-Norfolk railway	Privately owned
50021	Rodney	April 1990	Gloucestershire Warwickshire Steam Railway	Tyseley Locomotive works	50021 Loco Association
50026	Indomitable	December 1990	Mid-Hants Railway (see panel)		
50027	Lion	July 1991	Mid-Hants Railway	North Yorkshire Moors Railway	Privately owned
50029	Renown	March 1991	Pontypool & Blaenavon Railway	Peak Rail	Renown Repulse Restoration Group
50030	Repulse	April 1992	Pontypool & Blaenavon Railway	Peak Rail	Renown Repulse Restoration Group
50031	Hood	July 1991	St Leonards TMD	Severn Valley Railway	Class 50 Alliance
50033	Glorious	March 1994	Claimed by the National Railway Museum after withdrawal, it was later transferred to Steam – The Museum of the GWR at Swindon. Still unwanted, it was meant to go to the Railschool at North Woolwich but eventually moved to Tyseley Locomotive Works. There were insufficient resources to get it going but, thankfully, in 2018 it was taken under the care of the C50A, moved to Kidderminster and resurrected.		
50035	Ark Royal	August 1990	St Leonards TMD	Severn Valley Railway	Class 50 Alliance
50042	Triumph	October 1990	Bodmin & Wenford Railway	Bodmin & Wenford Railway	B&W Main Line Diesel Group
50043	Eagle	February 1991	50043 was bought to donate spares to the restoration of Class 40 40118 at Tyseley. It was re-sold, moved to the Pontypool & Blaenavon Railway but scrapped in 2002.		
50044	Exeter	January 1991	St Leonards TMD	Severn Valley Railway	Class 50 Alliance
50049	Defiance	August 1991	Cardiff Allied Steel and Wire	GBRf	Class 50 Alliance
50050	Fearless	March 1994	St Leonards TMD	Nottingham Eastcroft	Boden Rail



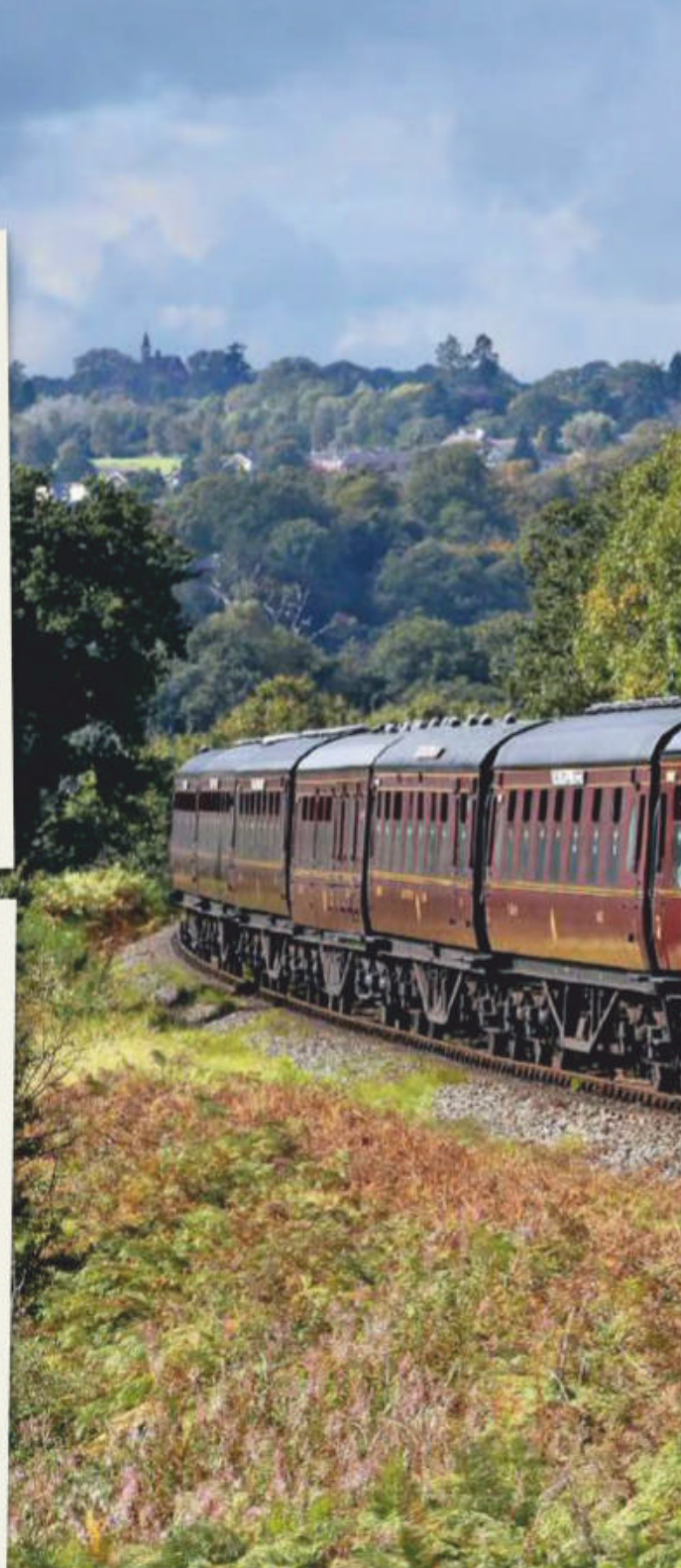
MASTERCLASS

Right: Although BR's corporate colour schemes were supposed to be standardised, there was considerable variation in how it was applied. Some Class 50s had black roofs, others wore smaller tweaks such as red bufferbeams. Staff at Plymouth's Laira depot were particularly proud of their '50s' and applied the famous shade of 'Laira blue' to 50008, 50019 and 50037. These locomotives would rarely have undertaken departmental duties, but 50008 *Thunderer* looks the part as it hauls Network Rail rail grinders past Up Hatherley, near Cheltenham on July 7 2017, en route from Okehampton to Derby. MARTIN LOADER



Above: 50027 *Lion* was one of the first Class 50s to work in preservation and made its debut at the Mid-Hants Railway in 1992. It moved to the North Yorkshire Moors Railway where it was photographed on its first day in service there, on May 6 1995, passing Thomason Foss with the 1520 Pickering-Grosmont. The NYMR was its home until 2012 when it returned to the MHR, a location arguably more appropriate for its Network SouthEast livery than the bleak, heather-clad moorland of Yorkshire. MARTIN LOADER

Below: 50007 took on celebrity status in 1985 when it received a green colour scheme, GWR numberplates and the name *Sir Edward Elgar* as part of the celebrations to mark the 150th anniversary of the Great Western Railway. Restored to BR blue livery as *Hercules*, 50007 carries out the type of duty that GBRf will employ it for: hauling a rake of off-lease GWR Mk 3 coaches from Bristol to Long Marston for storage on January 30. MARTIN LOADER



return never materialised. The increasingly shabby locomotive was passed from pillar to post, with spells at Wembley, Crown Point and Barrow Hill before the Devon Diesel Society recovered it to the South Devon Railway for a thorough overhaul in 2003.

The early 2000s was a relatively quiet time for main line Class 50s. There were some memorable railtours, the highlights of which were the annual jaunts that took 50031 and 50049 to Mallaig, Kyle of Lochalsh and Wick in 2005, 2006 and 2007 respectively. There were tours that took the '50s' back to old haunts, such as Penzance, Birmingham New Street, London Paddington and Waterloo.

2006 was a watershed year, however. Arriva Trains Wales hired the Class 50 Alliance's 50031 and 50049 for a year – with the option to extend for a further year – for working Cardiff to Fishguard summer trains and other special duties, such as services connected with rugby at Cardiff and the Royal Welsh show.

Class 50s have since been hired by EWS, Colas and GBRf. Rail Operations Group and Loram has hired 50008 for spot-hire freight work, while 50007, 50017 and 50050 have all worked freight trains for Colas. 50007 and 50049 have even been used by CrossCountry Trains for route learning.

It's somehow fitting that, in the year that the class marks the 25th anniversary



of its withdrawal by BR, 50007 and 50049 will wear the colours of a freight operator. GBRf has signed a deal with the Class 50 Alliance to use the pair for charter work, stock moves and other duties, releasing its Class 66s and 60s for freight duties. And the most intriguing part of the deal is that 50007

and 50049 will be repainted into GBRf livery.

It's hoped that the GBRf duo will be joined on the main line by 50026 this year and, with the long restoration of 50030 bearing fruit, '50' fans should be able to enjoy the sound of 16CSVT engines hard at work on the main line for many years to come. 

The Class 50 Alliance's next 'shock' took place in 2009 when 50035 appeared in the colour scheme of 1994 'shadow' freight franchise Loadhaul. The jury's still out on whether the black and orange scheme suited the '50s' lines. Judge for yourself from this view of No. 50035 *Ark Royal* - carrying the number 50135 - as it passes Foley Park on the Severn Valley Railway in 2012. MARTIN LOADER

'50s' for scrap

BR sold 16 Class 50s for scrap in the five years between the withdrawal of 50011 in 1987 and 1992. 50006/012-014/022/025/038/047 were scrapped by Vic Berry of Leicester in 1988/89, whereas 50005/009/024/028/032/034/039/041 were cut up at Old Oak Common by Coopers Metals in 1992.

1992 was a key year in Class 50 disposals. 50003 and 50048 were taken to MC Metals in Glasgow in April and scrapped pretty much upon arrival. 50018, 50037 and 50046 followed in June 1992 and were quickly disposed of.

Coopers scrapped 50010 at Laira depot in the spring of 1992, whereas 50011 hung about until September. Although it was the first '50' to be withdrawn, it had been retained at Crewe Works as a test bed for overhauled power units. It's not clear if it was ever offered for preservation or simply punted on to

local scrap merchants Texas Metals, which cut it up on site at Crewe.

CF Booth bought nine '50s' in early 1992. 50004, 50016, 50020 and 50036 were quickly scrapped in May-July 1992 but 50001, 50023, 50026, 50040 and 50045 remained in Booth's yard.

50026 moved to the Mid-Hants Railway in 1993, but 50001, 50023, 50040 and 50045 wouldn't be saved until September 1995. Sadly, the word 'saved' proved to be somewhat optimistic, for they were acquired by a rather ambitious project called 'Operation Collingwood', which had also bought 50029 *Renown* and 50030 *Repulse* direct from BR.

Operation Collingwood had an elaborate scheme to rebuild the locomotives as part of apprenticeship training schemes, but it foundered and the four deteriorating '50s' were sold back to CF Booth in December 1999,

without ever leaving the yard. 50029 and 50030 were sold to the Renown Repulse Preservation Group and moved from the Pontypool & Blaenavon Railway (where they had been since late 1996) to Peak Rail in October 2002.

The saga still wasn't over. While 50045 *Achilles* was scrapped in April 2000, 50023 *Howe* moved to Barrow Hill. Some work to return it to original condition was carried out but the project was shelved and, in March 2004, *Howe* was finally scrapped.

Now-defunct spot-hire operator and rolling stock broker Cotswold Rail bought 50001 *Dreadnought* and 50040 *Leviathan*. 50001 was scrapped in January 2002 by Raxstar, whereas 50040 *Leviathan* festered at the Coventry Railway Centre from May 2000 until it was finally put out of its misery by Sims Metals of Halesowen in July 2008.



HOW TO

CREATE YOUR OWN GBRf '50'

Dave Lowery talks us through his approach to giving the Class 50 a new livery.

Once again, GBRf has come up trumps by repainting two Class 50s into its house livery. The two 'Hoovers' will be used for stock moves but at least these classic machines will be kept on the main line for everyone to enjoy. Judging from the artwork I received from GBRf, the slab-sided '50s' suit their new livery very well.

When painting a model, I look at the colours used and how I will apply them to the shape. That means that I take into account cut-off points for masking.

A nice, neat, straight line is always preferable. The fewer lumps and bumps that might hamper you achieving that perfect, straight line the better. The biggest problem is where one colour creeps under the masking and interferes with

the colour underneath. You can touch this up after all the paint has been applied but it's a messy and difficult job, unless you completely respray the whole colour.

It's also standard practice to start with the lightest colour, mask it off and then move onto the next darkest colour. But on the '50' model, I've deviated away from the norm. The block of blue on the body sides ends just short of the inner handrails. There's the tiniest strip of orange between the blue and the handrail. It would be hard to mask over the handrails and get a perfect straight line between the orange and blue.

Any dark colour, if over-sprayed with a lighter colour will create a shadow through the lighter colour once dry. Therefore, I applied white before the orange.

Normally, I would remove all the glazing before spraying, but because the cab units and glazing on Hornby's model are one unit - and because it has opening cab doors - I decided to mask off all the windows with masking tape and Humbrol Maskol.

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AVAILABILITY Kernow Model
Rail Centre Tel: 01209 714099
Web: www.kernowmodelrailcentre.com

 A couple of days to let the paint dry properly.  

What you will need

SHOPPING LIST

- ◆ Precision Paints P301 GBRf Blue, from £3.85; P302 GBRf Yellow, from £3.85 **Availability:** Phoenix Precision Paints, Orwell Court, Wickford, Essex SS11 8YJ Tel: 01268 730549 Web: www.phoenix-paints.co.uk
- ◆ Fox Transfers FEP50007 50007 Hercules etched nameplates, £6.20 **Availability:** Fox Transfers, Unit 5 Priory Business Park, Wistow Road, Kibworth, Leicestershire LE8 0RX Tel: 01163 194950 Web: www.fox-transfers.co.uk

TOOLS

- ◆ Airbrush
- ◆ Compressor
- ◆ Sharp knife
- ◆ Masking tape
- ◆ Humbrol Maskol
- ◆ Old paintbrush
- ◆ Self-healing cutting mat

Little and large, a comparison between Hornby's 'OO' gauge Class 50 and PRMRP's 'O' gauge kit (www.prmrp.com). The GBRf decals and numbers were commissioned from Precision Labels - they should become part of the Precision range in due course (www.precisionlabels.com).



STEP
BY
STEP


1

Hornby's yellow warning panel is good quality, so I masked that off. I used tape to cover the bulk of the yellow and then filled any gaps with Maskol. Don't forget to put a blob of Maskol on the roof panel marker lights.



2

Apply GBRf blue to the body side and roof. Mask the roof and bodyside and then spray the window surrounds black. Mask when dry and then follow with a coat of white. The final job is to apply the orange.



3

When everything's dry, remove all the masking, except for that on the glazing. Apply gloss varnish. When dry, follow up with the orange cantrail stripe. I like to use a bow pen but you can use paint pens if you prefer.



4

Soak the decals. Gently slide the decal into roughly the correct position using a blunted cocktail stick, absorbing excess moisture. When it's in its final position, press out the trapped moisture from beneath with a sponge.



5

When the decals are dry, apply your preferred varnish (satin or gloss). Allow to dry and remove the window masking. Reassemble the model and, as a final touch, add the etched nameplates.

TOP
TIP

If you leave the glazing in to spray a model, don't forget to also mask off the *inside* of the windows. If you don't, they may get a misting of overspray.

WIN GBRf Class 50 50007 Hercules



A Class 50? In GBRf livery? This was an opportunity too good to miss. But Dave Lowery was already ahead of us. He'd already got several '50s' in 'OO' and 'O' in his paintshop, ready to undergo the same treatment. Adding an extra one to the production line to be won by a lucky *Model Rail* reader wouldn't be a problem.

The only issue is that, at the time of writing, GBRf hasn't finalised the livery! The real 50007 and 50049 are at Arlington Fleet

Services' workshops at Eastleigh, pending confirmation of which cabsides will receive 'GB Rail-freight' logos. Unfortunately, with an impending press deadline, our model of 50007 couldn't wait – so what you see here might not match the real '50s' 100% accurately when they emerge from Eastleigh works. But never let it be said that *Model Rail* isn't on top of what's happening on the real railway!



50007 Hercules will return to the main line in GBRf colours but it's not the first unusual livery that it's carried during its career. It was renamed *Sir Edward Elgar* and given Great Western-style livery in 1985 to commemorate the GWR's 150th anniversary. The distinctive green '50' passes Coker Wood, on the former LSWR main line, on May 21 1988. RAIL PHOTOPRINTS

To stand a chance of winning a 'OO' gauge version of 50007 *Hercules* in GBRf livery, as painted by Dave Lowery, go to www.model-rail.co.uk/mr259-comp and answer the following question:

Q: The partially built aircraft carrier HMS Hercules was sold to which country in 1957?

A Austria **B** India **C** Liechtenstein

For full terms and conditions, go to www.bauerlegal.co.uk/competition-terms.html

● **Closing date is April 10 2019.**

Don't have the internet?

Send your answer, plus contact details, to Class 50 Competition, *Model Rail*, Media House, Peterborough Business Park, Lynchwood, Peterborough PE2 6EA.

FULL CIRCLE

It started as a brief dalliance, to add a bit of sound and liven up a few models. Then **Dave Lowery** fell head-over-heels in love with sound, animation and lights, and now he's besotted with the pleasures of DCC.



XXXXXXXXXXXXXXXXXXXX

My first foray into DCC was an attempt to bring parts of my layout alive with sounds. A diesel locomotive with the sound of its engine ticking over and a steam locomotive simmering away was all I was after. The cost to convert a fair number of locomotives to DCC by fitting chips and speakers was going to be too expensive. However, my wife bought me an ECOS DCC controller and so my conversion to DCC began.

Like all new ventures, I went through an experimental period. I tried out various combinations of chips and speakers to find the ones that worked best. At this point Bryan Robertson, who does all the

sounds for Howes and a number of specialist, top-end model vendors, such as Masterpiece Models, came to see the layout and all the lights went on at once, both figuratively and literally.

Bryan is a genius when it comes to sounds and bringing life to projects. He provided the computer expertise, sounds and fine-tuning to get the effects I was after exactly as I'd imagined them. I just connected it to the models and enjoyed the results.

Our first projects started with getting the locomotives to run smoothly and synchronising the 'chuffs' and wheel movements on steam locomotives, and to cover the range of diesel sounds to give really ➤



The town scene showing the lightning flashing behind the houses. I have a dimmer switch on the fluorescent tubes to bring the lights down, then I add the rain sound. The footplate of that locomotive gently steaming away, with its grate glowing on the tracks, looks quite cosy.

While the LEDs are in the head of the pantograph for practical purposes, the pans don't touch the wires or, at least, they shouldn't as they are a little on the flimsy side. A touch of modeller's licence!





Bryan Robertson with his box of tricks, bringing more exciting features to the layout.

ground-shaking noises. One particular project was the 'Deltic'; it has a deep bass sound, and with the use of Cliff Williams' excellent speakers the full prototypical sound was achieved. And wow, is it impressive!

Next came the firebox glow in the locomotive cab, which only comes on when the fireman starts to shovel coal. After he's finished, the firebox door slams shut and the light goes out. The grate glow on the track below the locomotive was the subsequent project. Both light effects were achieved with a red or orange LED attached with a resistor to a printed circuit board (PCB) and located inside the fire hole and under the grate, respectively.

Going to the other extreme, I wanted the pantograph heads to flash in time with the electrical buzz sound included in the sound files for the overhead electrics.

FLASH, CRACKLE AND POP

We worked on a pair of Freightliner Class 86 electrics for a while, getting the flashing LEDs fixed in the pantograph heads to flash at a good frequency while coinciding with the electrical flash sound. For a bit of variety, I fitted a white LED to one locomotive pantograph and a blue LED to the other. This gives a good but subtle effect. Each locomotive has its own chip so they flash independently from each other.

Speaking of lights, one of the things Bryan can alter is the brightness of the lights on the locomotives. Three configuration variables (CVs) need to be changed while the locomotive is on your programming track. After several years of fine-tuning the locomotives' sounds and enjoying them, my attention wandered back to bringing the various sections of my layout to life by adding

everyday sounds.

There are looping samples of background sounds on the market, but I chose to use chips, mainly because I can then activate my sounds on the chip with their own function button, along with standard background sounds which will run all the time.

For example, I have a seaside scene, so Bryan loaded up a range of appropriate sounds to give the desired effect. Initially, there are sounds of waves lapping on the seashore, and a periodic bout of shrieking seagulls, plus other sounds operated by function keys. These include a crane whirring, a foghorn and wires slapping against masts.

You can also add lights to go with the sounds, and in the scene of the town and station we have achieved lightning and thunder against an ambient sound of constant rain, the occasional sound of pigeons and train announcements, and background traffic noise.

The lightning was achieved by fixing a number of bright white LEDs to a length of PCB and controlling them with the chip. It can be activated as required by pressing function key three.

So you see, I have come full circle with wanting DCC to bring the layout to life.

And next, well, the circuit boards also have sockets into which I could fit more chips to control servos which could raise and lower pantographs and, of course, trigger the attendant flash and buzz effects when they touch the wire.

And I do feel the driver should either move his arm or move his head – or both... hmmm!

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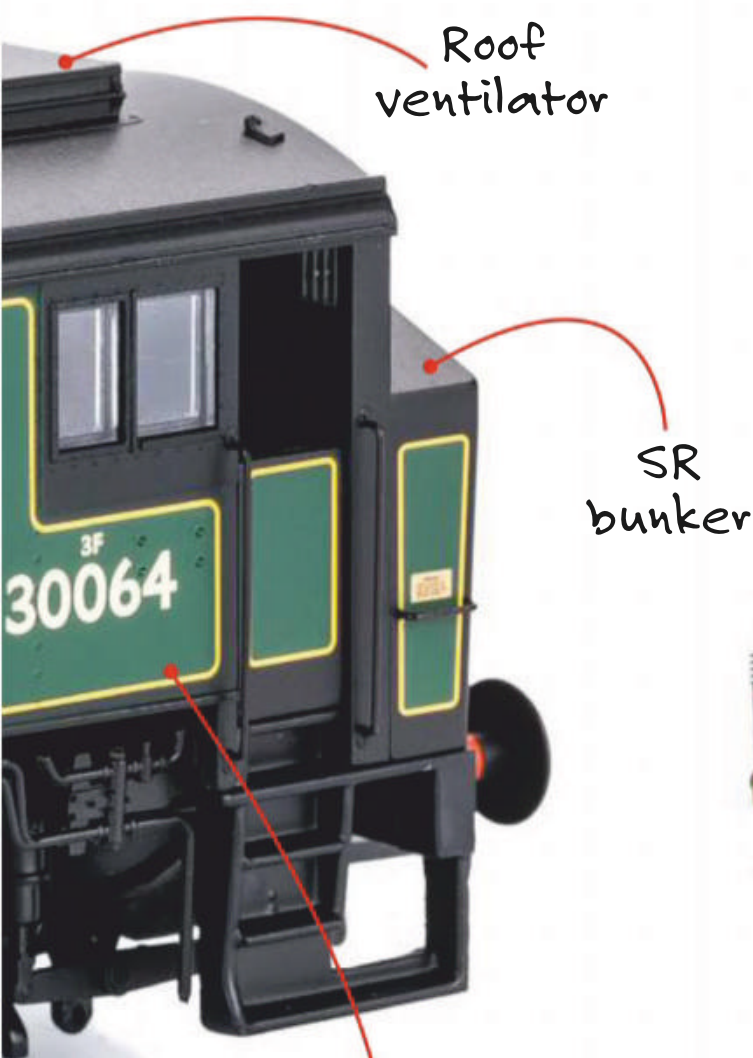
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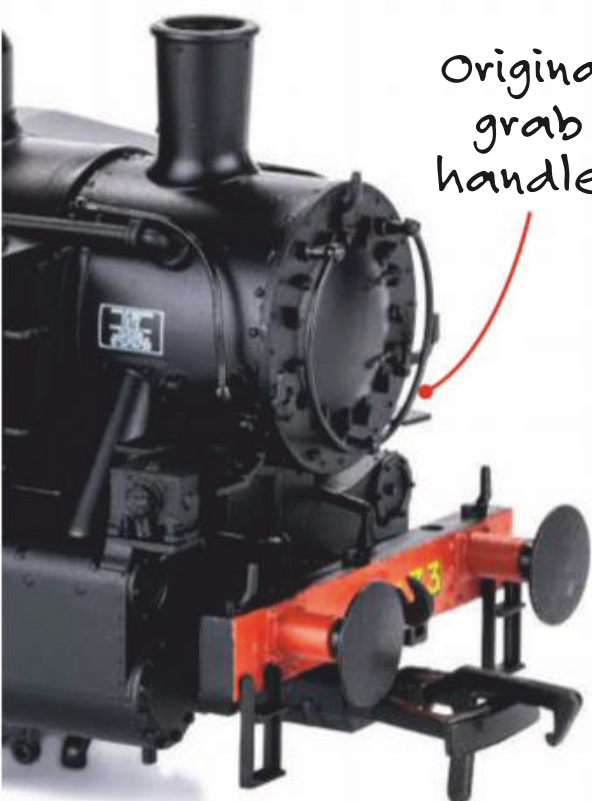
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Shear genius!

With some inventive thinking and unorthodox DIY techniques to create some baa-rillicant effects, **Rob Gunstone's** ovine-themed layouts are geared to give maximum enjoyment for minimum cost.

Words: **Chris Gadsby** Photography: **Chris Nevard** Artwork: **Andrew Mackintosh**

“‘S’heep Lane’ was a result of sheer frustration,” Rob Gunstone recalls. He’d spent roughly five years building a large, 18ft by 12ft loft layout but had come to a point that many large layouts reach. The track was laid, trains were running but, as Rob says, “things just didn’t feel right, so it all ground to a halt.”

A change in circumstances meant that the loft layout never got any further. It was dismantled.

“The desire to have a layout never went away,” he says, “and a chance encounter with a redundant IKEA shelf got me thinking about a small shunting layout that could be stored when out of use and set up quickly anywhere in the house. I added a second shelf and ‘Sheep Lane’ was born.”

Inspiration came from John Betjeman’s wonderful film *A Branch Line Railway*, filmed on the Highbridge branch of the former Somerset & Dorset.

“This was my first layout after a long time away from modelling so I wanted to develop my skills. I certainly didn’t go into the construction with the intention of making an exhibition layout. I simply wanted to try out new techniques and see what came of it.

“I decided to keep things simple and get it finished, taking a ‘less is more’ approach. All of my locomotives and wagons are either Bachmann or Hornby ready-to-run models, which I’ve weathered, and the buildings are also ready-to-plant. The larger hut on the right-hand side is from Bachmann, though after the original roof was damaged I added some individuality by ➤

VITAL STATS

Layout:

‘Sheep Lane’

Size: 6ft 3in by 10in

Gauge: ‘OO’

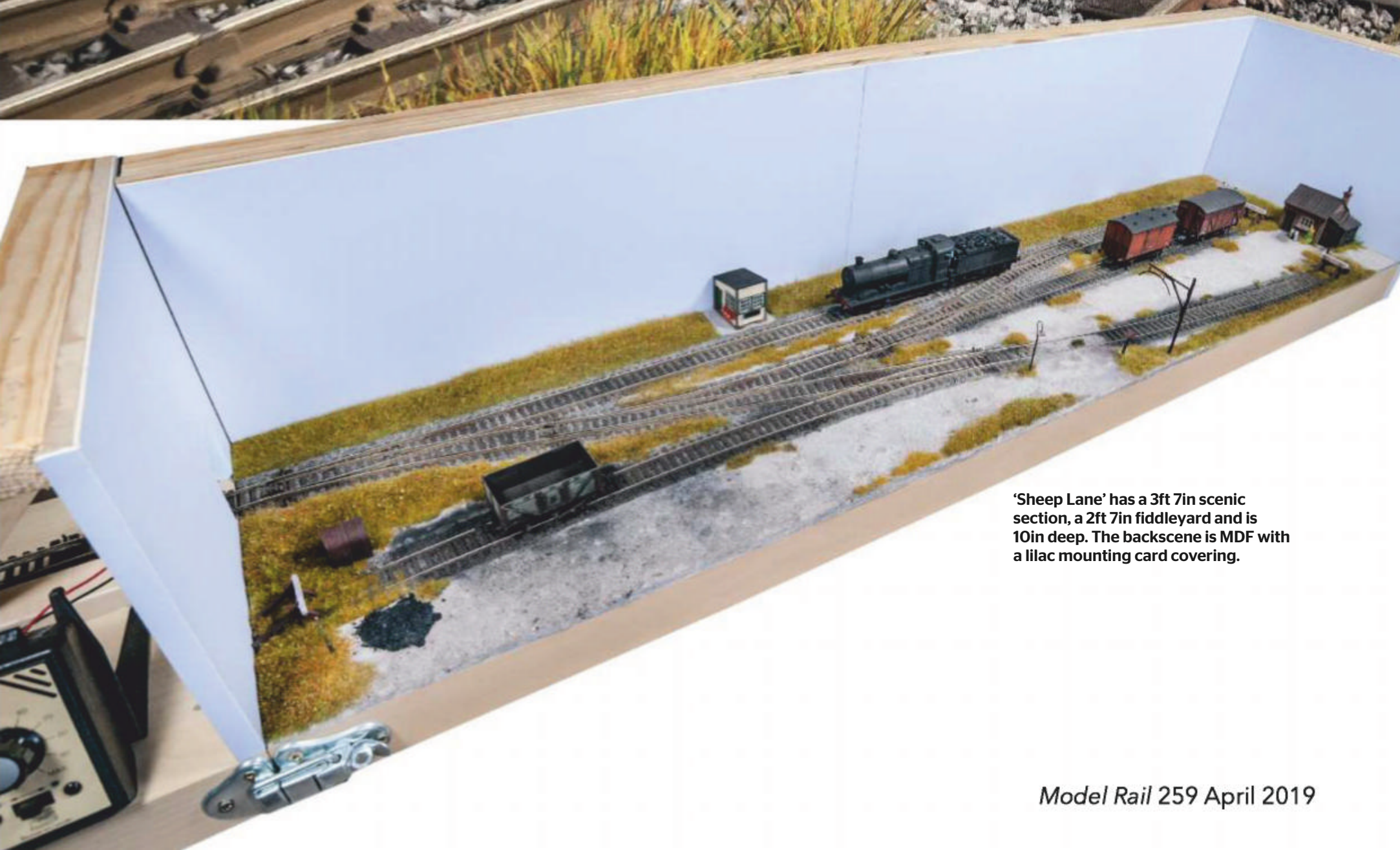
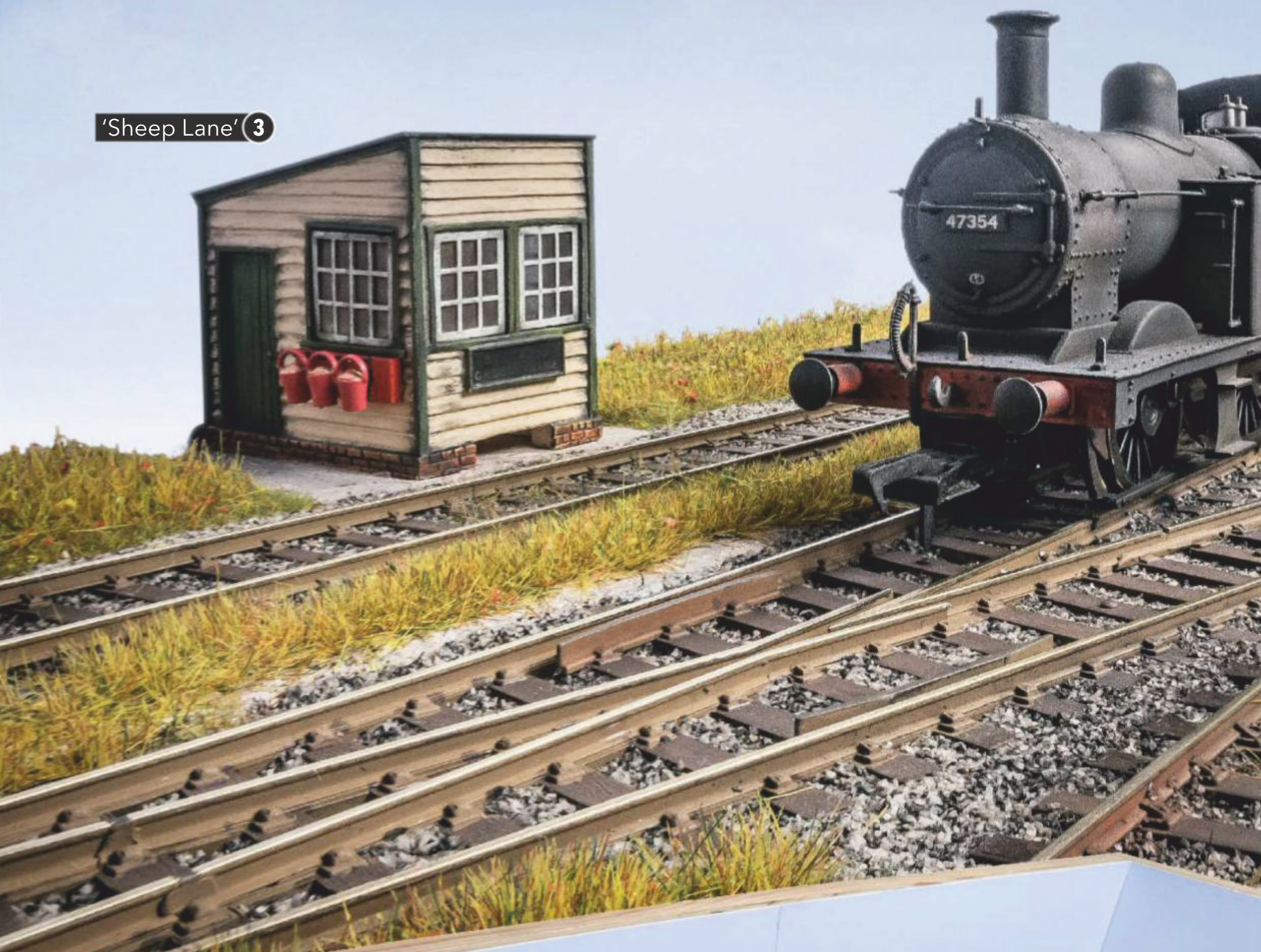
‘Sheep Lane’ 1





LAYOUT SHEEP LANE

'Sheep Lane' 3



'Sheep Lane' has a 3ft 7in scenic section, a 2ft 7in fiddleyard and is 10in deep. The backscene is MDF with a lilac mounting card covering.

3 things we like



1

The loading gauge has been made from scraps of Code 75 rail.



2

The air-raid shelter is a Hornby ready-to-plant model.



3

The locomotives feature crews from Falcon Miniatures.

making a new one for it out of foil from a Prosecco bottle. The ground frame hut is an exclusive model from Kernow Model Rail Centre."

GROUNDWORK

Take a closer look at the ground detailing and you'll see where 'Sheep Lane' really comes into its own. The flat landscape is typical of the area Rob is modelling and the balance of concrete and grass is realistic. At first glance there are no obvious indications about which part of the country 'Sheep Lane' depicts yet, as with all good layouts, the modelling itself gives it away. Rob's layout is set in the South West, on the SDJR – his favourite line.

The build wasn't expensive. The two shelves cost just £18. They're joined with case clips and rely solely on the fishplates for connectivity.

"It's all very low-tech. My Gaugemaster Combi controller provides the DC power and I've used live frog points so I don't have any trailing wires. The shelves are solid, and I didn't fancy boring down into them to fit point motors, so switching is done with the good old finger method!"



What makes this layout great?

In the words of a certain meerkat, 'simples'. Rob hasn't got bogged down with trying to build complicated features, but he has focused on perfecting the basics, and that finely crafted simplicity is what gives the layout its appeal.

CLEVER IDEAS FOR CONCRETE AND LAMPPOSTS

Concrete technique 1

"I've used different methods of modelling the concrete on the two layouts, but this is the method I prefer.

"After applying a base layer of DAS modelling clay, I poured PVA glue over the top and sieved on graded barbecue ash, which is then weathered to represent the odd area of darker concrete and gritty stone. The grass is all static in a variety of lengths stuck on the layout with a WW Scenics applicator. Several colours have been used to avoid uniformity - then I've added some flowers to further break up the grassy elements."



Lamppost technique

What's made from copper tubing, a paper clip, jewellery beads and the label from a bottle of Prosecco? That'll be Rob's lamp posts!

"A little out-of-the-box thinking was needed for these. The copper tubing provides a sturdy base but it would have been a nightmare to bend it to shape so I used a paper clip, which was easier. I then raided my daughter's 'make your own jewellery' kit for some beads and took the label off a Prosecco bottle for the shades, although I wasn't allowed to do it until the bottle was empty!"



“The larger hut on the right-hand side is from Bachmann, though after the original roof was damaged I made a new one for it out of foil from a Prosecco bottle”

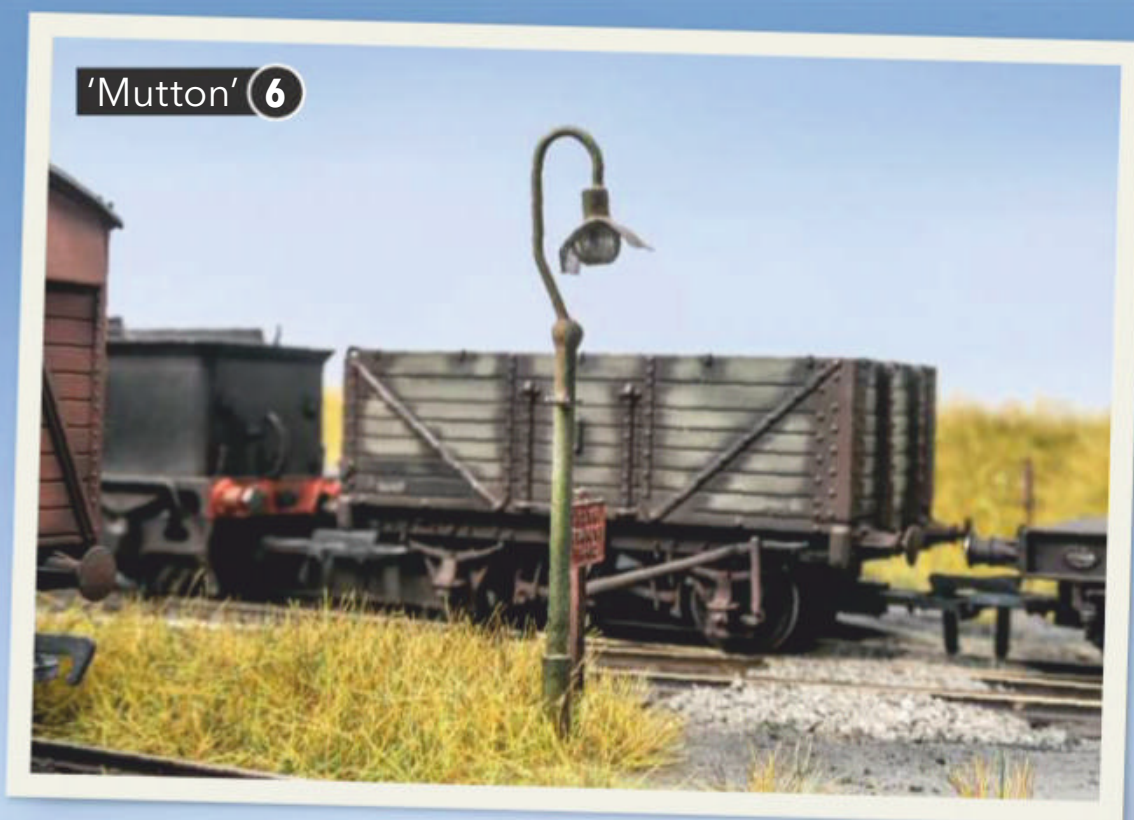


LAYOUT MUTTON

“The Somerset & Dorset Joint is easily my favourite line in the country and is the basis of my railway interest. However, the S&D was run jointly by the London & South Western and the Midland Railways and this has led to an interest in both. So much so that my second layout, ‘Mutton’, which wasn’t even finished when Chris Nevard came to take these photographs, is based on an ex-LSWR branch line.”

‘Mutton’ is a fictional place. But it’s based on Combyne, the only intermediate station on the Lyme Regis branch. Many of the construction methods between the two layouts are the same, although the shelves for ‘Mutton’, which measure 4ft by 1ft 4in, are slightly bigger than those of ‘Sheep Lane’ and cost Rob £24.

Consisting of a single-line platform with a run-round loop and three sidings, ‘Mutton’ is not permanently set up in his home but it has allowed Rob to continue working on his skills when ‘Sheep Lane’ was finished.



‘Mutton’ 6

The locomotive used on ‘Mutton’ is a Hornby Adams ‘Radial’.



‘Mutton’ 5



'Mutton' 7



'Mutton' 8

'Mutton's' station building is a Bachmann ready-to-plant model based on Woody Bay, but Rob has weathered it, painted around the window sills and added posters to personalise it.



LAYOUT **MUTTON**

'Mutton' was finished in October 2018, six months after these photographs were taken.

“Nothing jumps out at you as being obviously weathered in a different colour and that is how I like it”

Since the photographs were taken, the signal box has been replaced by a ground frame and there is a goods shed blocking the view of the transition through to the fiddleyard.

CLEVER IDEAS FOR WEATHERING AND LANDSCAPING

Magic Powder

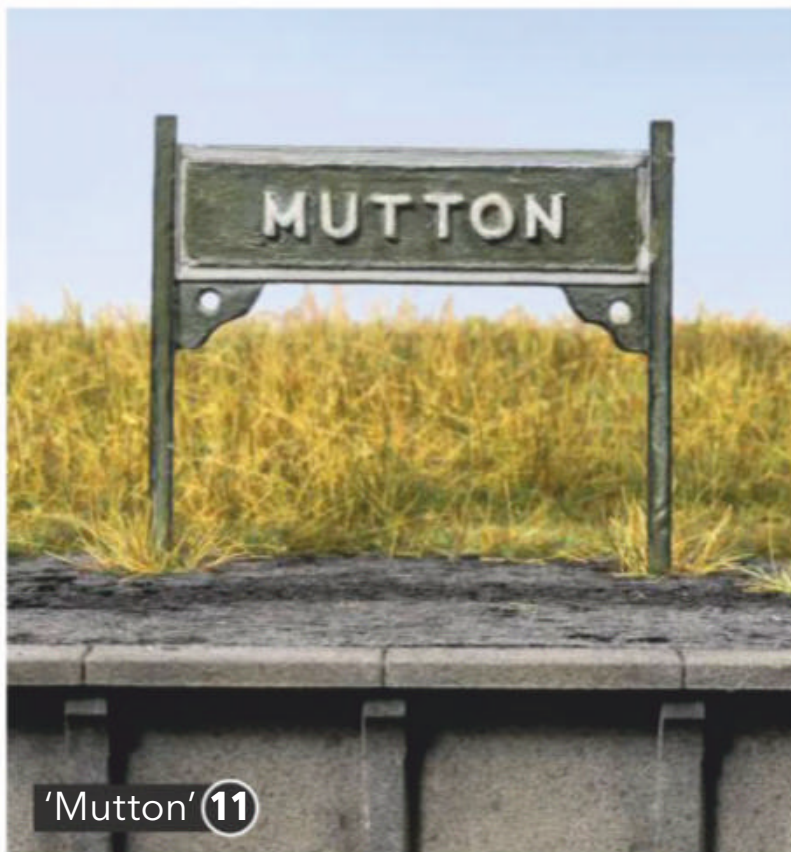
"The weathering is an aspect of the layout I'm particularly pleased with. Everything has been done with Humbrol weathering powders. I prefer this, as I have more control and, to me, it looks more realistic. A lot of the grime would have come out of the top of the chimney and would have been dusty, so the extra texture that the powders provide makes it look a little bit better."

Rob has used the same palette of weathering powders for everything at 'Mutton', from the locomotives to the station building - a Bachmann resin model of Woody Bay - to ensure that everything blends together.

"Nothing jumps out at you as being obviously weathered in a different colour and that is how I like it. If the locomotive grime has come out of the chimney then so would a lot of the grime for the trackwork, buildings and surrounding area as it settled."



'Mutton' 10



'Mutton' 11

Landscaping

There's nothing to interrupt the flat landscape here, but Rob has added a small embankment behind the platform.

"Both parts have blended into one another quite nicely, with the static grass giving the impression of a slightly overgrown embankment. I've used foamboard covered in plaster bandage to give the angle and then added the static grass on top. The platform is 40 thou plastic card, coupled with Peco platform edges. I wanted a crumbling asphalt effect on the platform surface. To achieve this, I glued on yet more ash then waited until it was almost set hard before using my daughter's toy rolling pin to break up the surface and give it a cracked effect."



Concrete technique 2

"I used a different method to make the concrete effect here than I did on 'Sheep Lane'. I used mounting card and again covered it in ash. I was happy with the effect after I'd given it a bit of tonal variation, but it is a little too flat and I prefer the clay."

3 things we like



1

The track is Code 75 - it's been painted and weathered with granite ballast, affixed with PVA.



2

The ballasted walkway to get from the station building to the platform.



3

The bufferstops are Peco, which Rob has modified and weathered.

What makes this layout great?

Even in a small space there is plenty of operational potential at 'Mutton', which means Rob can play trains for a long time before repeating movements. It even has shunting puzzle capabilities.



MODELLER CV: ROB GUNSTONE

As well as modelling, Rob's other interests include motorcycling and enjoying winter trips to European countries such as Germany and the Czech Republic in sub-zero temperatures - yes, really!

What's next? "Well, I'd like to build the terminus of the line on which 'Mutton' is based. I would call this 'Lamb Regis' [continuing the ovine theme], but first up is 'Bleat Wharf', another S&D-based layout."





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Masterplan Dramatic Lines

Track plans to get you thinking in three dimensions

SCOTLAND in scale

Paul A. Lunn saves the best of his Dramatic Lines series to last: Scotland!

It's been a fun exercise to investigate the most spectacular stretches of railway in the UK – and just beyond – but is there any better place with which to conclude this 'Dramatic Lines' series than Scotland?

You could argue that almost every mile of railway north of the 'Central Belt' would qualify for 'dramatic' status and so I apologise for bringing you here – and in the next issue – what appears to be every line in the Highlands. But the railways of Scotland allow us to explore a technique that I call 'format planning'.

Layouts come in several basic arrangements – end-to-end, 'L' or 'U'-shaped or the continuous loop, possibly incorporating an operating well. Whatever arrangement you choose, it's easy to fall into the trap of filling a baseboard shape with whatever can be shoehorned in.

This can often explain some pretty incongruous and unprototypical arrangements, such as unrealistic curves, under-proportioned sidings and loops and a lack of space for key structures. It can also lead to a particular bone of contention, made worse when trying to recreate a landscape such as Scotland, to an appearance of track sitting on

a baseboard rather than creating a landscape through which trains run.

They're all easy mistakes to make, yet equally as easy to avoid with a dollop of forethought.

In my design clinics, there's one key statement that I make: keep an open mind when starting a new project. Have a good look at what's out there and make an informed choice before you start to throw lots of time and money at it.

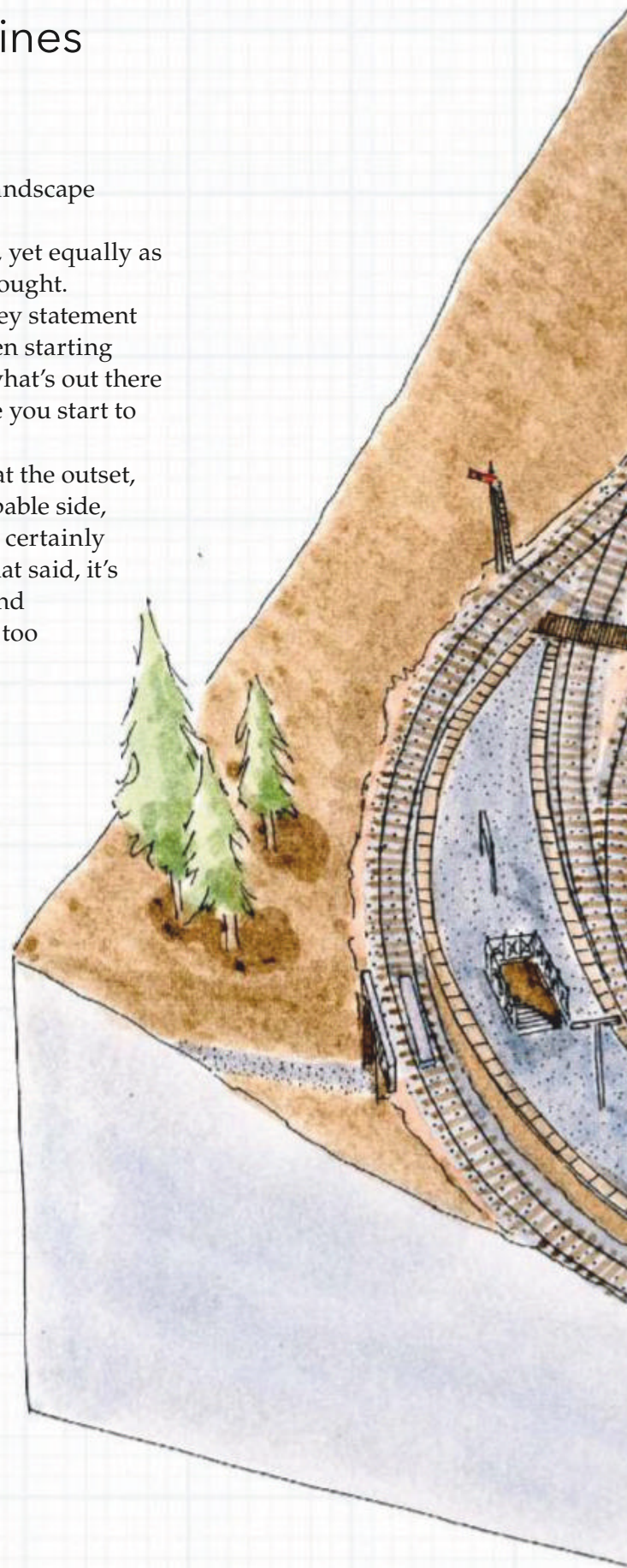
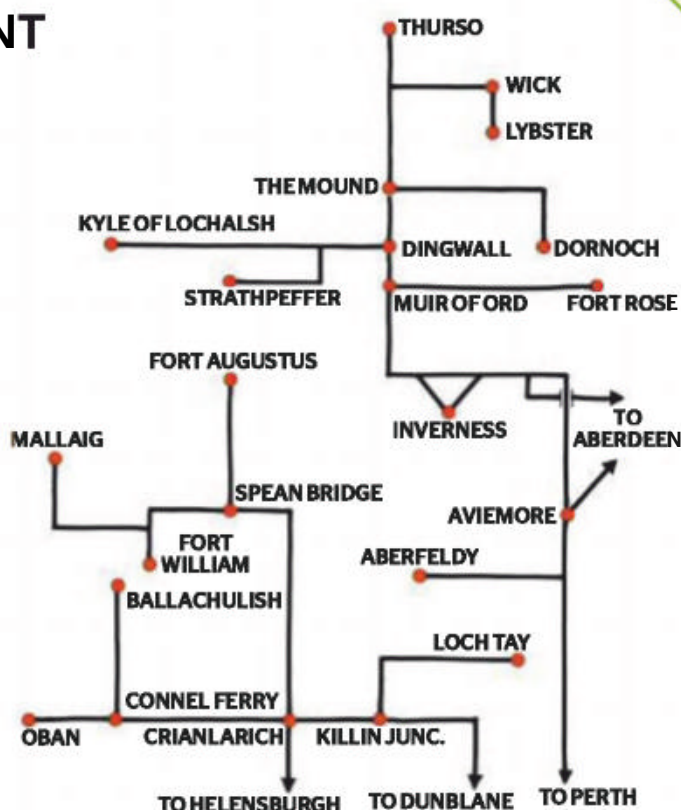
Some of my favourite ideas have, at the outset, seemed a bit on the wild and improbable side, maybe fanciful, perhaps unique and certainly venturing into untested territory. That said, it's so important to consider anything and everything at the outset: don't focus too quickly on one subject – in doing so you might blinker yourself from finding the best solutions.

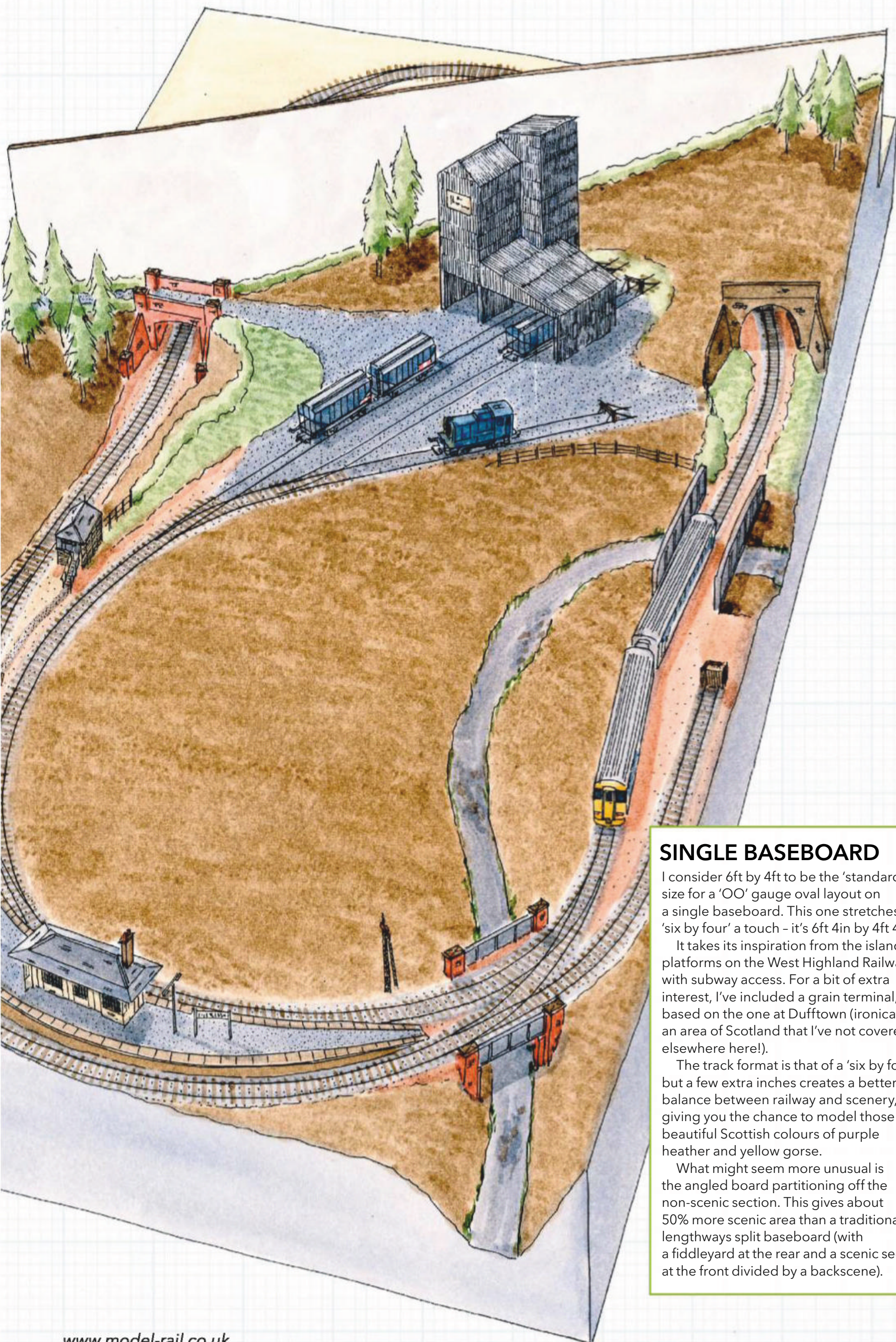
Most importantly, you might be quite surprised that your initial idea has been far outweighed by something considerably better. Let's start by identifying the best way forward. 

THE STARTING POINT

Here's a schematic plan of railways in the Highlands (circa 1923) that I drew to identify key locations. It shows branch lines, junctions, junction and branch line together, main lines, through-lines and lines that terminate. We can clearly see the relationship between one part and another and how each bit links to others. There are 14 terminus stations, eight branch lines and 15 junctions, including two at Inverness.

Now that you know this, you can start to manipulate larger prototype arrangements into recognisable baseboard format shapes.





SINGLE BASEBOARD

I consider 6ft by 4ft to be the 'standard' size for a 'OO' gauge oval layout on a single baseboard. This one stretches the 'six by four' a touch - it's 6ft 4in by 4ft 4in.

It takes its inspiration from the island platforms on the West Highland Railway, with subway access. For a bit of extra interest, I've included a grain terminal, based on the one at Dufftown (ironically, an area of Scotland that I've not covered elsewhere here!).

The track format is that of a 'six by four', but a few extra inches creates a better balance between railway and scenery, giving you the chance to model those beautiful Scottish colours of purple heather and yellow gorse.

What might seem more unusual is the angled board partitioning off the non-scenic section. This gives about 50% more scenic area than a traditional lengthways split baseboard (with a fiddleyard at the rear and a scenic section at the front divided by a backscene).

BASEBOARD ARRANGEMENTS

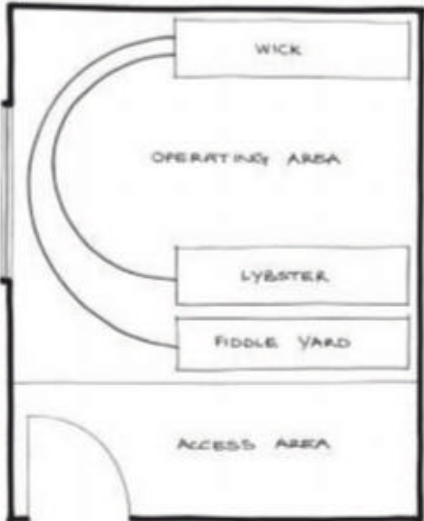
Single baseboards work well if you want to model a single location. But what if you want to model more, such as a stretch of railway, or more than one classic location or station?

Here's where format planning comes into its own. To illustrate what I mean, let's take a look at the northern extremity of the Highland Railway system, of Thurso, Wick and the light railway to Lybster that closed in 1944.

'U'-shaped

This dual-sided layout portrays the way the Lybster branch turned sharply away from the station throat at Wick. It obviously uses more space but it's an ideal layout for two operators. An additional or alternative access door could lead into the open end of the operating area.

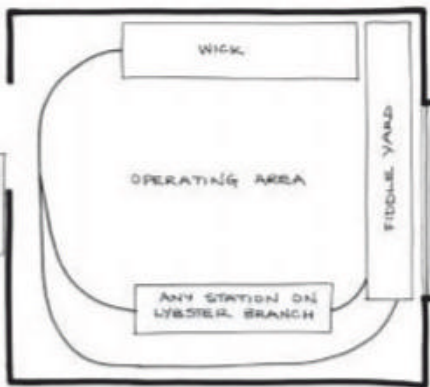
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GAUGE



End-to-end

You might consider an end-to-end layout to be a straight, linear affair, but there's nothing wrong with adopting an almost oval format such as this. It includes Wick and part of the Lybster branch and has the benefit of two lines sharing one fiddleyard. You will need to devise a way to reach the track behind the 'any station' baseboard - you could go

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GAUGE

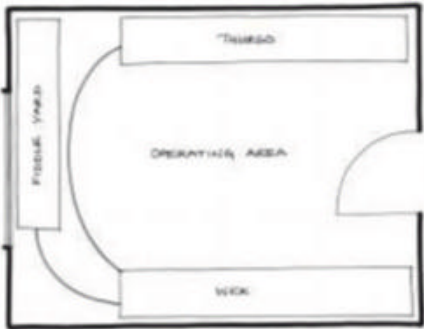


through access holes in the bottom left and right-hand corners, or incorporate a removable backscene.

'U'-shaped

Another 'U'-shaped design that, this time, links Thurso and Wick. I'd be tempted to leave the curved section non-scenic for easier access to the fiddleyard. A doorway leading directly into the operating area is much preferred, as opposed to

00
GAUGE



a duck-under, particularly for older modellers!

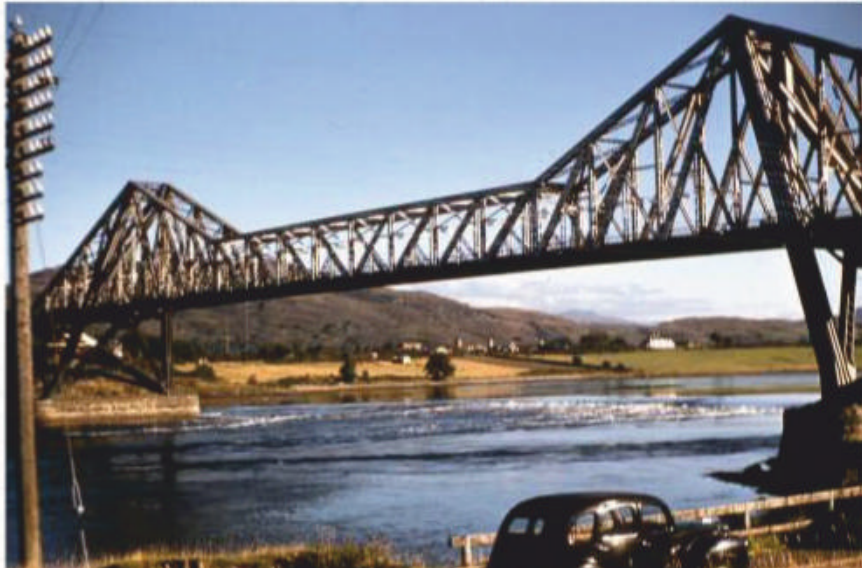
Railway factfile: Lybster branch

Built for:.....Wick & Lybster Light Railway Company
Worked by (at nationalisation):N/A
Terminus:Lybster
Main line connection:Wick
Opened:July 1 1903
Length of line:14 miles
Intermediate stations:7
Fate?Closed on April 1 1944

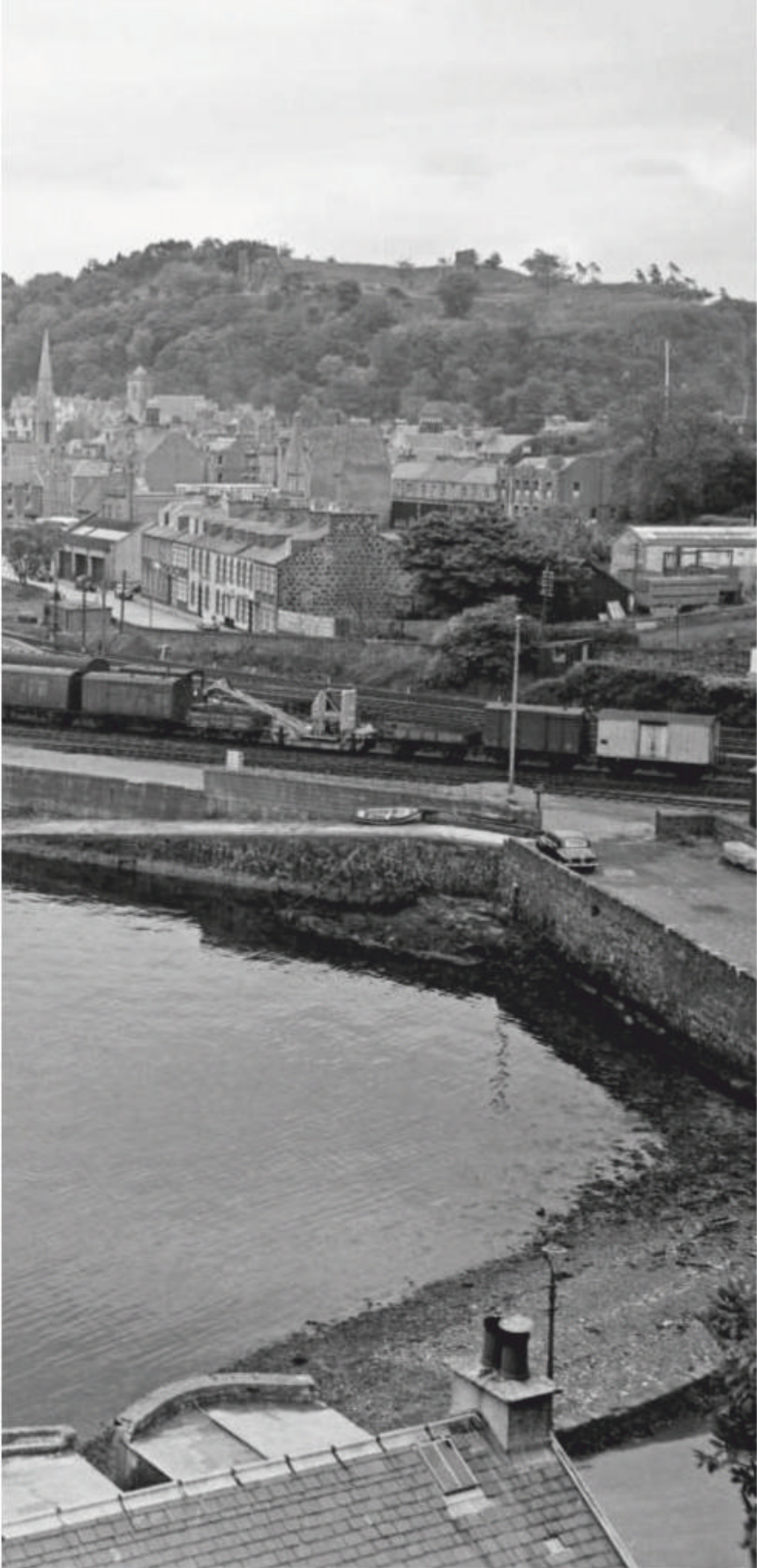


THE CALLANDER & OBAN

The Callander & Oban Railway linked, as its name suggests, Callander in the east with the beautiful coastal town of Oban. It features some particularly spectacular stretches of railway, including one through the Pass of Brander, but I've chosen to focus on the very western end, from North Connel to Oban, including the famous branch to Ballachulish.



The impressive span of the Connel Bridge would measure something like 1.05m in 'N' gauge (it's 524ft). The central oblong box section would measure 46.4cm in 'N' (232ft in 1:1 scale). Below are the waters of Loch Etive and the celebrated Falls of Lora. PAUL A. LUNN COLLECTION



Left: An elevated view of Oban gives a clear idea of the key elements of the dockside and station. For those with less space, it would make an ideal station-to-fiddleyard 'L'-shaped layout. For those with a more substantial amount of space, it could have the added benefit of being portable for exhibition appearances, or removable, along with the bridge section, to allow for car storage when the layout is not in use. RAIL ONLINE

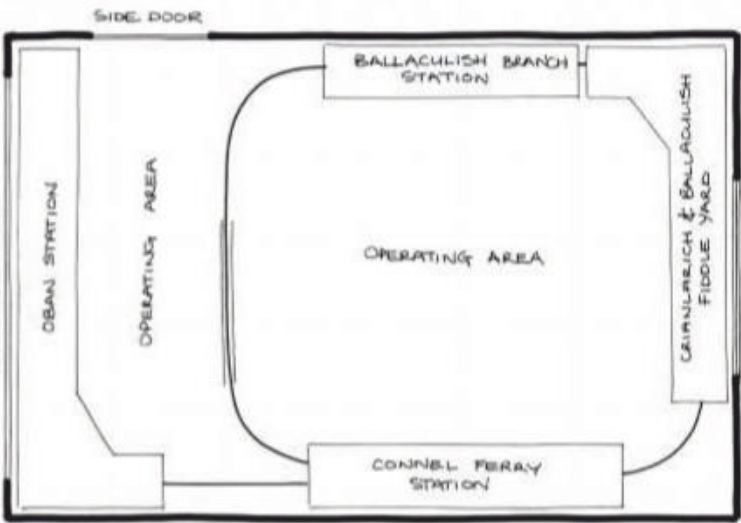
Right: Connel Bridge was built for the railway in 1903 but a roadway was added in 1914. Road and rail traffic shared the bridge, though never at the same time! After the branch closed in 1966, it became a road bridge. Ex-Caledonian Railway '439' 0-4-4T No. 55263 rumbles across the bridge on June 3 1956. RAIL ONLINE

Below: Connel Ferry station on July 22 1955, with '2P' No. 55196 in charge of the 8.25am Oban-Ballachulish. Today, the station is a shadow of its former self, featuring just a single line and surrounded by trees and vegetation. PAUL A. LUNN COLLECTION



Above: Showing clearly the slate quarry and hills that would make a great model backdrop, D5359 stands at Ballachulish. It was slate, not tourism, that drove construction of the railway. The concrete platform face is visible, as are the modifications to the waiting room to adapt it for its new role. DOUGLAS TWIBELL/TRANSPORT TREASURY

Railway factfile: Ballachulish branch	
Built for:	 Callander & Oban Railway
Worked by (at nationalisation):	 LMS
Terminus:	 Ballachulish
Main line connection:	 Connel Ferry
	 (Crianlarich-Oban line)
Opened:	 August 20 1903
Length of line:	 28 miles
Intermediate stations:	 7
Fate?	 Closed on March 28 1966



You can get Oban, Connel Ferry and Ballachulish in 'N' into a reasonably sized garage, using a combination of an 'L' shape and an oval. Due to close proximity, it would make sense to model North Connel station on the oval (where it says 'Ballachulish Branch Station') though any of the line's stations deserve modelling (Benderlock, Creagan, Appin, Duror, Kentallen or Ballachulish Ferry). You could even model Ballachulish station itself, although you won't need the link into the fiddleyard (top right).



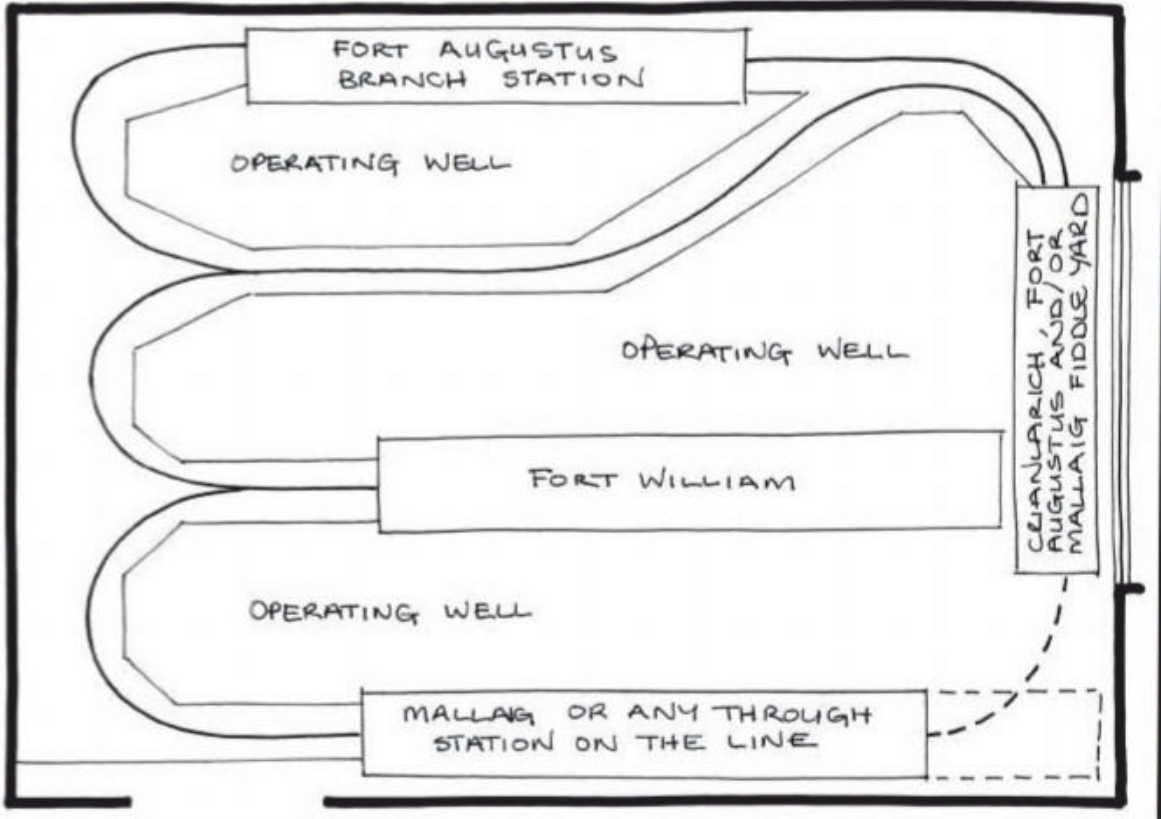
THE WEST HIGHLAND

Is there a more spectacular piece of railway in Britain than the West Highland and its Extension? Leaving central Glasgow, it takes in the Trossachs and Loch Lomond, the wild expanse of Rannoch Moor and the foothills of Ben Nevis. It features some stunning railway architecture, including Glenfinnan Viaduct. Throw in the now-closed Invergarry & Fort Augustus Railway and you'd be able to include Loch Ness too!

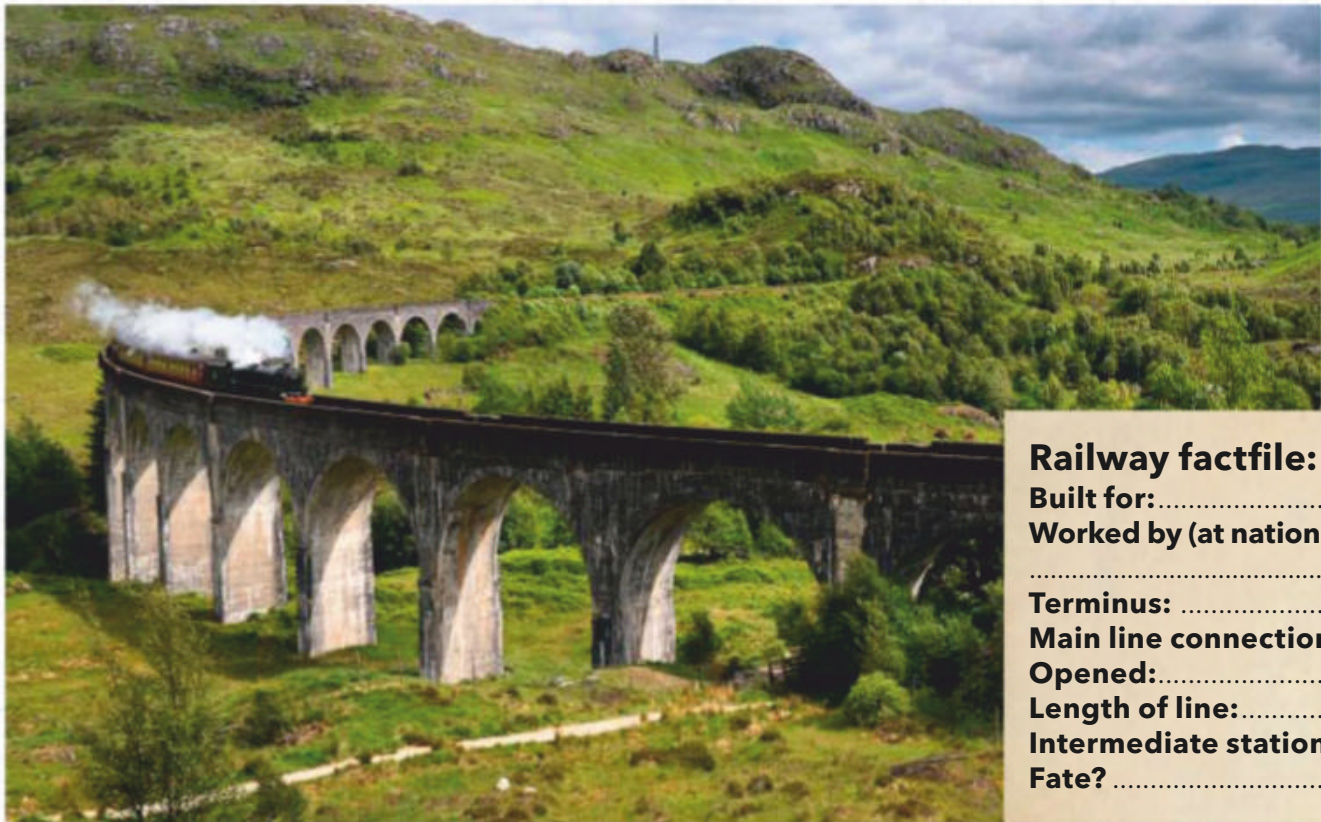


Above: Banavie swing bridge over the Caledonian Canal, and its neighbouring station, sit in the shadow of Ben Nevis. It's of bow string construction and was originally turned by hand (but is now hydraulic). An unidentified Class 25 on passenger duty reduces down to the mandatory 5mph speed restriction over the bridge on September 26 1979. PAUL A. LUNN COLLECTION

Right: Mallaig station's track plan might be much reduced in size to how it appeared in steam days, but during the summer it still provides plenty of interest. 'Black Five' No. 45407 prepares for departure with the 'Jacobite' steam special to Fort William as a ScotRail Class 156 sits in the adjacent platform. PEARL BUCKNALL/ALAMY

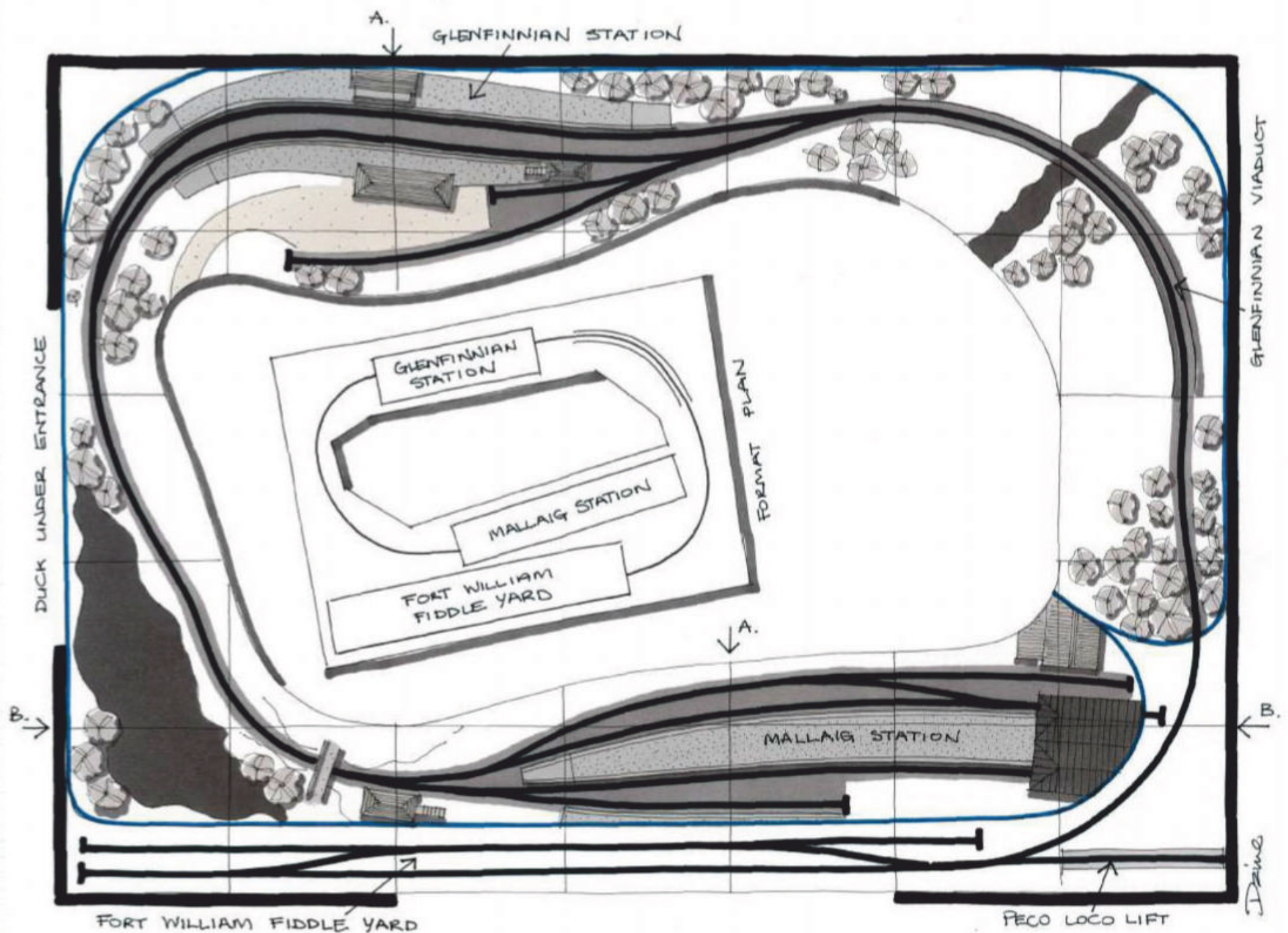


Can you really get Fort William, Mallaig and Fort Augustus onto one layout? Yes, if you opt for a loose figure of eight format. Note that you could substitute Mallaig for any station on the Extension, joining into the fiddleyard, bottom right. Again, you could substitute Fort Augustus for any station on the branch (Gairlochy, Inverglochy, Invergarry or Aberchalder). You don't even have to model the stations here and could pick scenic sections from either line. Whatever you choose, this layout would be a considerable size and best suited to 'N' gauge. Each operating well is 2ft 6in wide.



Left: What can be said about Glenfinnan Viaduct that hasn't been said already? Thanks to the Harry Potter film franchises, it can challenge the Forth Bridge as Scotland's most famous piece of railway architecture! It was built from mass concrete (without metal reinforcement) and completed in 1898/99. It's 1,248ft long, 18ft wide and stands approximately 100ft above the river. A true 4mm:1ft scale re-creation will be some 5m long so it's clear that a considerable amount of reduction will be necessary on any layout at this scale. GAERTNER/ALAMY

Railway factfile: Fort Augustus branch	
Built for:	Invergarry and Fort Augustus Railway
Worked by (at nationalisation):	 N/A (although operated by Highland and North British railways)
Terminus:	 Fort Augustus Pier
Main line connection:	 Spean Bridge (West Highland)
Opened:	 July 22 1903
Length of line:	 24 miles
Intermediate stations:	 5
Fate?	 Finally closed on December 31 1946



It's all very well coming up with the 'format planning' concept but how does that translate into a fully functioning track plan? Here's an exploratory attempt to get the West Highland Extension into a 7ft by 5ft space. It's presented as a piece of semi-finished artwork, whereas I normally wouldn't develop it any further than a rough pencil sketch.

There are many engaging features; some curves are prototypically correct, the stations appear largely as their real life counterparts. There's a much reduced version of Glenfinnian Viaduct and even a couple of dramatic scenes (Loch Eilt bottom left and the River Finnan valley beneath the viaduct).

Sadly, platform length and fiddleyard capacity leave much to be desired, which gives rise to two possible solutions: move down to 'N' or stay in 'OO' and extend it to 8ft by 6ft.

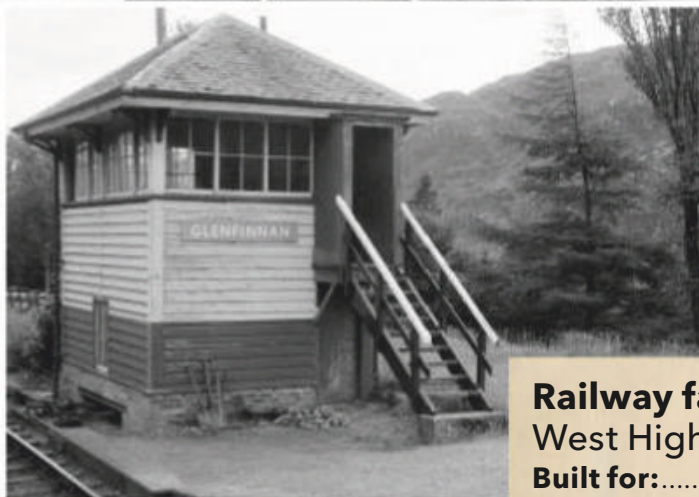
If the extra foot goes in at point 'A', you can increase both Mallaig and Glenfinnian platforms and sidings at the former. At 'B', you can increase station width to include the oil terminal platform (currently low-relief) and increase the length of Loch Eilt. Furthermore, it would be possible to include an extra loop line in the fiddleyard.

This is more acceptable, but we're not there yet! If I was drawing this for a client, I'd increase the width by one or two feet and the length to 10ft. The platforms and fiddleyard could then cope with five coach trains and still in a relatively small space. Perhaps most important would be the opportunity to position a slightly longer viaduct nearer the fiddleyard, creating more space between it, at the top left-hand end, and Glenfinnian Station, in order to add a yard headshunt.

OO
GAUGE



Above: Glenfinnian station has two platforms, linked by a foot crossing, a passing loop, headshunt and two sidings. PAUL A. LUNN COLLECTION



Above: Glenfinnian signal box was built in 1901 and has 15 levers. It was taken out of use in 1986 when Radio Electronic Token Block signalling was installed and now forms part of Glenfinnian Station Museum. PAUL A. LUNN COLLECTION

Railway factfile:

West Highland (Mallaig Extension)

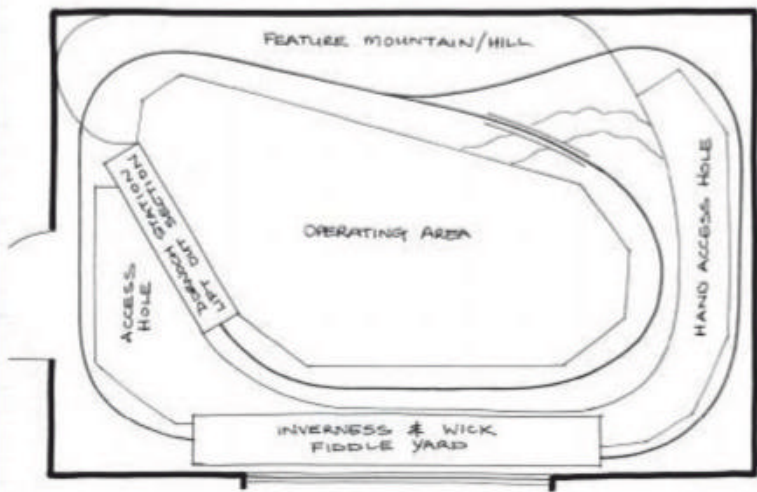
Built for:..... West Highland Railway
Worked by (at nationalisation): LNER
Terminus: Mallaig
Main line connection: Fort William Junction
Opened:..... April 1 1901
Length of line:..... 41 miles
Intermediate stations:..... 9
Fate? Still open

FAVOURITE BRANCHES

Scotland isn't known for its rural branch lines, unlike, say Devon and Cornwall. But they did exist, and two of my favourites are the lines to Dornoch and Strathpeffer.

Dornoch branch

The line between The Mound and Dornoch is probably best considered in 'N' gauge. The layout comprises an oval main line with an inner branch line to Dornoch, itself a lift-out terminus for access and possible exhibition use. The design enables dramatic sections of landscape and the ability to watch trains pass through them, as well as enabling shunting and suchlike at Dornoch.



Railway factfile: Dornoch branch

Built for:..... Dornoch Light Railway
Worked by (at nationalisation): LMS
Terminus: Dornoch
Main line connection:
..... The Mound (Highland main line)
Opened:..... June 2 1902
Length of line:..... 7½ miles
Intermediate stations:..... 2
Fate? June 13 1960

Above: Hawthornthwaite '16XX' 0-6-0PT No. 1646 waits to leave Dornoch with the 1pm to The Mound on September 10 1959. Two WR panniers replaced ex-Highland Railway 0-4-4Ts on the lightly laid branch after No. 55053 broke an axle.
BRIAN STEPHENSON

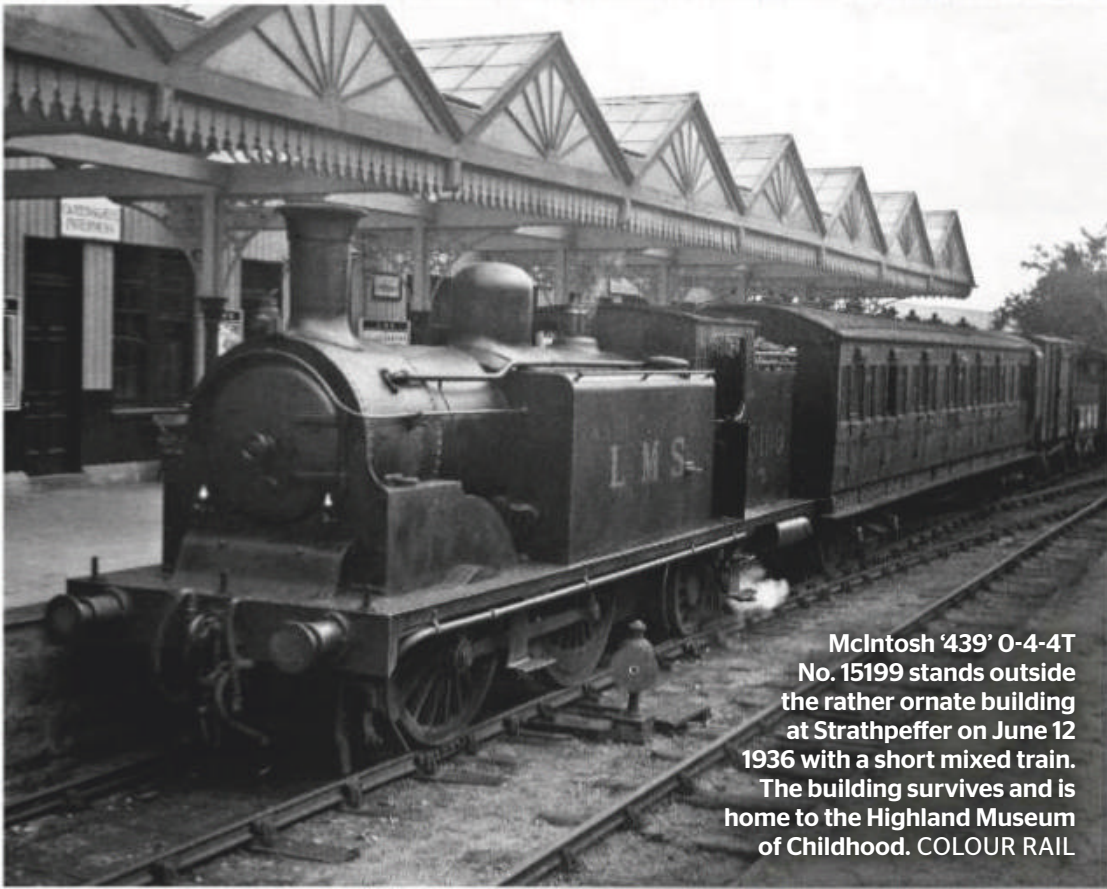
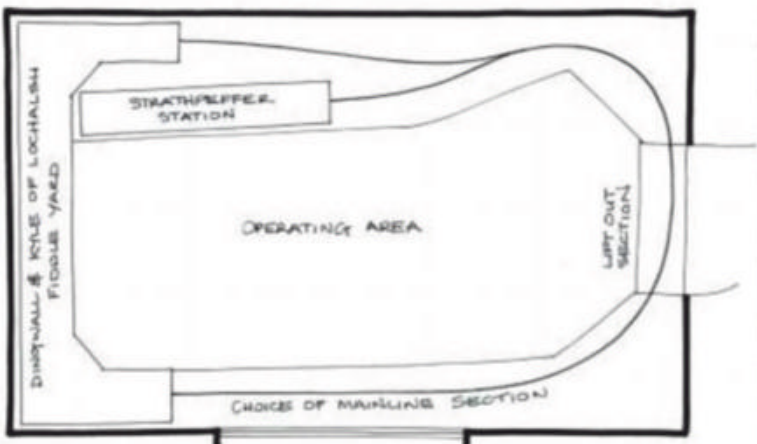
Strathpeffer Branch

This plan reflects the fascinating history of this short branch. Denied access to the little town of Strathpeffer by local landowners, the Dingwall & Skye Railway had to build a costly diversion as it drove its railway west towards Kyle of Lochalsh. This blossoming Victorian spa resort needed a much closer station than the one provided, so a short branch was later provided, serving its own railway station.



Such was Strathpeffer's importance that the Highland Railway introduced a named express to the town. You could even take advantage of a sleeping car through-service direct from London. Sadly, the First World War put paid to such services.

I've suggested an oval format with several scenic sections and a short branch near the operating well. I anticipate this layout, in OO gauge, to be situated in a good-sized garden shed with a non-scenic, lift-out section across the access doorway. The section of main line - open to choice - could be based on that before Dingwall or, thereafter, any non-junction station between Carr Bridge and Dunkeld.



McIntosh '439' 0-4-4T No. 15199 stands outside the rather ornate building at Strathpeffer on June 12 1936 with a short mixed train. The building survives and is home to the Highland Museum of Childhood. COLOUR RAIL

Railway factfile: Strathpeffer branch

Built for:..... Highland Railway
Worked by (at nationalisation): LMS
Terminus: Strathpeffer
Main line connection: Fodderty Junction
Opened:..... June 3 1885
Length of line:..... 2¼ miles
Intermediate stations:..... None
Fate? Closed completely on March 26 1951

What next?

I'll look at format planning for such lines as the Killin branch and the line to Kyle of Lochalsh. Don't miss it!



Reviews

In-depth and unbiased reviews of the latest products

98 Oxford Rail railway gun *Gladiator*

Oxford Rail's going great guns with its 'OO' gauge model HMG *Gladiator*.

100 Bachmann LBSCR 'H1' 4-4-2

Six months after the 'H2', the 'H1' has made its way to our desks. Will it match up to the 'H2's' standards?

102 Bachmann Mk 1 stowage van

Bachmann's sorting van arrived in 2010 - now its stowage van has arrived to accompany the model.

104 Oxford Rail Mk 3a Open Composite

Oxford Rail adds another coach to its Mk 3 range. Could this be the firm's finest model to date?

105 Iwata Eclipse CS airbrush

George Dent has been putting what may be the ultimate general-purpose airbrush through an extended test.

106 Noch motorised falling tree

Adding the right motion to scenic areas can be tricky - will Noch's tree stand tall or come down with a bang?

Our reviewers

George Dent

A modern image expert, who also tests tools and modelling products.

Richard Foster

His forte is steam locomotives, regardless of region or era.

Chris Gadsby

Modern image is his area but he has an eye for detail on any model.

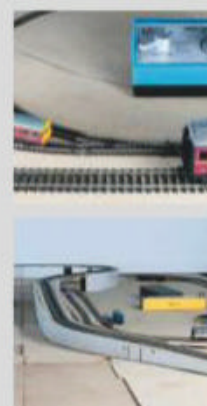
Our ratings

We assess models on the following criteria and rate each of them out of ten: that way, you know precisely how good a model is.

LOOKS	9/10
PERFORMANCE	9/10
FEATURES	8/10
DECORATION	9/10
VALUE FOR MONEY	6/10
TOTAL	82%

How we test

At *Model Rail*, we pride ourselves on the quality, thoroughness and unbiased nature of our reviews. To do this, we judge models against prototype images and historical texts. We also run them on our test track, which features 1-in-30 and 1-in-60 gradients in both 'N' and 'OO', not to mention numerous challenging track configurations.



Oxford Rail railway gun *Gladiator*

◆ GAUGE 'OO' ◆ MODEL Oxford Rail OR76BOOM02 Rail gun *Gladiator* ◆ PRICE £54.95 ◆ AVAILABILITY Oxford Rail stockists or www.oxforddiecast.co.uk

Oxford Rail blasted its way into 2018 (pun very much intended!) when it announced that it would make a 'OO' gauge ready-to-run BL 18in railway howitzer. HMG *Boche-Buster* was offered with a War Department 'Dean Goods'. It has also released HMG *Gladiator* as a stand-alone model.

The story of Britain's Second World War railway guns is a fascinating one. They were originally developed during the First World War and placed in store after hostilities ceased. The barrels were removed and the carriages languished... until they were required to provide defence for yet another German threat. Some carriages received 18in howitzer barrels; others

13½in gun barrels. HMG *Gladiator* was one of the latter.

A RARE BEAST

Finding photographs of railway guns during wartime is difficult (they couldn't risk allowing them to fall into enemy hands). *Gladiator* appears to be somewhat camera-shy when compared to *Boche-Buster*.

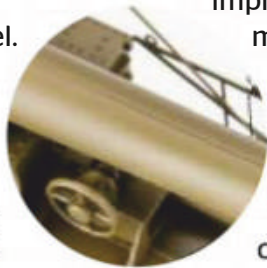
First off, this is a really impressive looking model. Judging by all available photographic evidence, Oxford has done a good job of replicating it. Let's start with the central feature - the gun. The inside diameter of the barrel is 6.5mm, which scales almost perfectly to the 18in howitzer barrel mounted to the

carriage. This is the model's biggest compromise - that what should have a 13½in long-range barrel has a howitzer barrel instead. We might criticise a compromise such as this in a locomotive and yet, somehow, it doesn't seem to matter as much here with such an impressive and charismatic model.

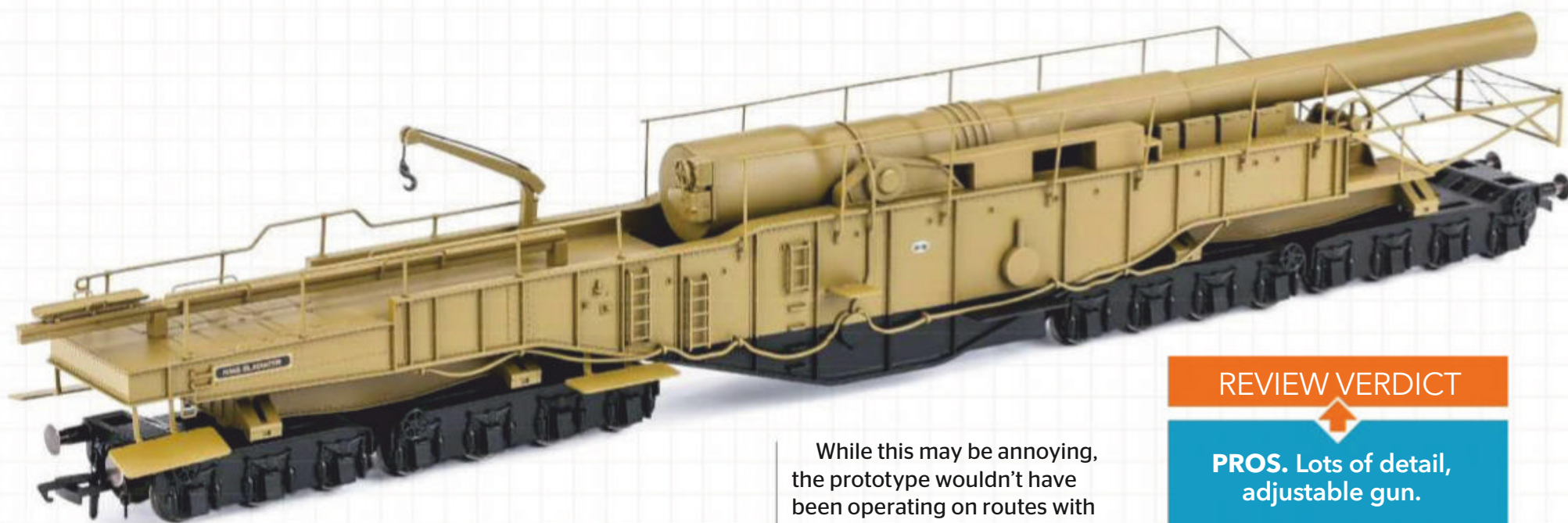
One thing that did disappoint on our sample was the build quality of the barrel. The two mould lines are clearly visible and there are some quite large gaps around the muzzle. Hopefully this is an isolated incident but ours will require some filler to correct.

You can pose the barrel, although be aware that it isn't a smooth motion and moves in a series of 'clunks', so a small amount of force will be required. This ensures that it remains in position when it's elevated.

The carriage is really well detailed. There are six ladders, four lots of steps without handrails, a crank, pipes, two cranes and a lot of rivets. Even the builder's plate is mostly readable under a magnifier, with only a couple of letters being indistinguishable. There are two separately fitted chains at either end next to the buffers (which aren't sprung), and black string is used to represent the narrow beams at the front.



“The model ran flawlessly around our test track, negotiating standard setrack points with ease”



Sadly it isn't all perfect. Some of the handrails are very thin - on one side of the model they had bent outwards and were no longer upright. Also, one of the small cranes at the back of the model had come off in transit. It's a relatively small, delicate piece and would be easy to re-attach with a small drop of glue.

What really grabs the attention is the model's size. It really is big and required Chris Leigh's 24in ruler to measure it (it's 13¾in over the buffers, and more than 14in when you take into consideration the ammunition belt that hangs over the back).

Despite its size, *Gladiator* ran flawlessly around our test track, negotiating tight, sectional points with ease, thanks to its split bogies.

OVERHANG

The only thing to be careful of is that it does have a very large overhang, and from reading reports from other modellers about how it has performed on their tracks, the large stepping platforms protrude quite a way and may well hit station platforms. The large overhang at the back also hinders the rear tension lock coupler.

While this may be annoying, the prototype wouldn't have been operating on routes with platforms and it's the same issue as you might have with Rapido's ATP-E, or Hornby's Class 800. You could always cut them off and reattach them in the upright position, as they would have been when it was in transit.

Oxford deserves a lot of credit for bringing us a railway gun. It might be a bit niche and of limited operating potential, but who can argue with something so impressive? You need no excuse to buy one! (CG)

REVIEW VERDICT

PROS. Lots of detail, adjustable gun.

CONS. Mould line along gun barrel.

LOOKS	8/10
PERFORMANCE	10/10
FEATURES	10/10
DECORATION	9/10
VALUE FOR MONEY	9/10

92%



Is this a contender for Model of the Year? Vote online now at www.model-rail.co.uk/moty-2019



Bachmann LBSCR 'H1' 4-4-2

◆ **SCALE** 'OO' ◆ **MODEL** Bachmann Branchline 31-910 Marsh 'H1' 4-4-2 No. 39 *La France*, LBSCR umber ◆ **PRICE** £199.95 ◆ **AVAILABILITY** Bachmann stockists

Bachmann has taken a pretty wise decision to maximise the economy of new tooling by developing all possible options at the same time. Developing the London Brighton & South Coast Railway 'H1' 4-4-2 concurrently with the more famous 'H2' version won't have been cheap, for they required two different running plates, although it will have been a more cost-effective exercise to get two classes of locomotive now rather than developing one years after the other.

But why talk about money-saving and accounting when you have a gem of a model locomotive in front of you?

The 'H2', reviewed in MR252, is one of the finest steam-outline models that Bachmann has ever produced. Kernow Model Rail Centre kindly loaned us 'H1' No. 39 *La France* and even in the slightly drab Marsh umber livery, the sweeping curves, burnished fittings and elaborate lining perfectly encapsulate Edwardian

locomotive elegance. It's a thing of beauty - and arguably better looking than the 'H2'.

Differences between the 'H1' and 'H2' are rather small. Douglas Earle Marsh faced an urgent need for express power when he became the LBSCR's Locomotive Superintendent in 1904. He swiftly negotiated with his former boss, H.A. Ivatt, for the drawings of the Great Northern Railway's 'Large Atlantics' to be sent to Kitson & Co. of Leeds. The drawings were hastily amended to include a longer piston stroke and higher boiler pressure.

Visual changes were limited to a larger cab - but with short cab roof - and the running plate was curved to cover the cylinders. This was a marked improvement to the Ivatt design, which left the top of the cylinders bare. Billinton, Marsh's successor, designed the running plate to be clear of the cylinders and driving wheels when he ordered the 'H2s' in 1911.

The five 'H1s' entered service in 1905. Works grey was later

replaced by Marsh's umber livery, with LBSCR initials on the tender. This was later amended to the scheme carried by *La France*, with just the letters 'LBSC' on the tender and coats of arms on the splashers.

VIVE LA FRANCE

La France was arguably the best of the quintet. It recorded a maximum speed of 86½mph with the accelerated Victoria-Brighton 'Sunday Pullman Limited' on June 30 1907. It hauled King George V to Portsmouth on June 24 1911 and was deemed the ideal motive power to deliver French President Poincaré to the Royal Navy's nerve centre in 1913. In honour of the occasion, it was named *La France*; no other 'H1' carried names until the Southern Railway era.

It's the undulating running plate that first catches the eye and it matches contemporary photographs. It's also worth pointing out the arrangement of the handrails around the boiler, with the leading knobs protruding

from the smokebox door ring.

Curiously, the Marsh livery reveals a shape compromise not noticed on the 'H2'. Presumably due to the thicknesses of the plastic and metal involved, the splashers stick out too far and are almost flush with the bottom edge of the firebox. There should be a greater gap, with the lower washout plug pointing further forwards.

Bachmann's choice of detail combinations dates *La France* to the post-First World War period. The class had gained steam heating in 1908, lost their bogie brakes by the end of 1916 and had received flared chimneys and flared safety valve casings (save for pioneer No. 37).

It's the finish that makes *La France* most striking, however, aided by the curious ochre tender top, a feature of Stroudley's 'improved engine green' scheme that presumably carried over to Marsh's umber livery. It could be argued that Bachmann's umber is a touch too dark but it really



21-pin DCC socket

doesn't matter for the lining is commendably fine and beautifully applied throughout.

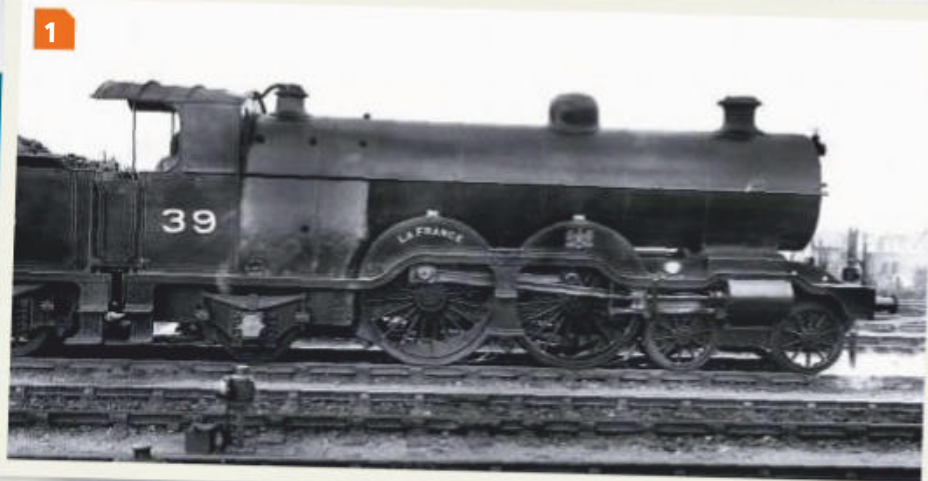
The LBSCR coat of arms is simply exquisite and beautifully printed. It's complemented by the fine worksplate, which has the words 'Kitson' and 'Leeds' visible to the 'Mk 1 eyeball'. The whole thing is topped off by beautiful turned metal buffers that look as though they ought to be sprung (they aren't).

Under the skin, the 'H1' matches the 'H2' in every way. In reality, they were actually much better than the later locomotives and No. 39 maintains that tradition. It was smooth and quiet straight from the box and handled 11 Hornby and Bachmann bogie coaches with aplomb.

Other than a fuzzy line between the ochre and the rest of the tender - and the depth of the splashers - the 'H1' is a wonderful model. Full credit to Bachmann for taking the time to bring us the perfect accompaniment to the 'H2'. (RF)

Factfile: No. 39 La France

1: No. 39 *La France* was the only 'H1' to be named, after it hauled French President Poincaré in 1913. Like its sisters, it was built by Kitson of Leeds and arrived at Brighton for painting on January 23 1906. In this view, it has been fitted with an extended cab roof but has had its bogie brakes and supplementary guard irons removed. Steam heating was installed in 1908 and the original Billinton-Derby chimney was replaced by a cast iron type from 1914. O.J. MORRIS COLLECTION/RAIL ARCHIVE STEPHENSON



2: No. 2039 *Hartland Point* makes a fine sight as it passes Purley Oaks with the Down 'Sunny South Express', formed of LMS stock, on August 16 1938. No. 39 had gained its new name, number and Southern green livery in January



3: No. 2039 became the test bed for the valve gear Bulleid wanted to use on his 'Leader'. It suffered from a failure in late 1948 and returned to service in March 1949 but was back in works that summer. It was painted BR black and numbered 32039 but never returned to service and was scrapped at Eastleigh in early 1951. RAIL ARCHIVE STEPHENSON

1926. It also received a superheated boiler during the same works visit - you can tell by the snifting valves behind the chimney and the fact that the smokebox saddle is visible. Tall LBSCR lamp irons have been replaced by smaller versions. O.J. MORRIS/RAIL ARCHIVE STEPHENSON

REVIEW VERDICT

PROS. Attention to detail, exquisite printing.

CONS. Little of note.

LOOKS 8.5/10
PERFORMANCE 9.5/10
FEATURES 9.5/10
DECORATION 9/10
VALUE FOR MONEY 9/10

91%

OVERVIEW

Manufacturer: Kader for Bachmann
Ref. No. 31-921
Unit No. 39
Scale/gauge: 1:76 scale, 16.5mm gauge, 'OO'

ELECTRICS

Electrical system: 12V DC two-rail
Motor type: Three-pole
Lights?: No

MECHANISM

Drive system: Gear train to driving axles

Body: Plastic with metal parts
Chassis: Metal with plastic parts
Weight: 377g
Min. curve radius: R2
Wheel back-to-back: 14.5mm

DCC ready?: 21-pin socket
Current consumption
Max speed: 0.4A Stalled: 0.8A

Flywheel(s): No
Traction tyres: No

DIMENSIONS

	PROTOTYPE	1:76 SCALE	MODEL
Length (over buffers)	N/A	N/A	245mm
Height (over chimney)	N/A	N/A	54mm
Width (over footplate)	N/A	N/A	31.9mm
Wheel diameter (driving)	6ft 7 1/2in	27mm	25mm
Wheel dia. (leading/trailing)	3ft 6in	14mm	13.1mm
Wheel diameter (tender)	N/A	N/A	15.5mm

SERVICING

How to dismantle: See instructions.

Where to oil: Factory lubricated; instructions suggest further lubrication after running in.



Bachmann Mk 1 Stowage Van



◆ **SCALE** 'OO' gauge ◆ **MODEL** Bachmann Branchline 39-765 Mk 1 POT Stowage Van 80419, Royal Mail red ◆ **PRICE** £49.95 ◆ **AVAILABILITY** Bachmann stockists

It's noticeable now how many model manufacturers are offering complementary models, so modellers aren't left with isolated locomotives with nothing for them to pull. You don't realise quite how many railway vehicles need complementary items of rolling stock for them to work effectively.

Take the Travelling Post Office, for example. If you've ever seen British Transport Films on the subject, you'll easily recall images of teams of people frantically going through sacks of mail, placing individual letters into a seemingly endless sea of pigeonholes, with the train bucking and swaying.

Bachmann, via ModelZone, brought us the exquisite Sorting Van back in 2010. As the name suggests, this was where the physical sorting took place. If you've ever seen inside a Sorting Van you'll see that there's not much space inside to store the sacks of mail.

The Sorting Van, therefore, needed a Stowage Van in order to be effective – and that's what we have for review here.

The Stowage Van has been a long time coming, for it was first announced in May 2013. It's been caught up in Bachmann's huge new product development queue, but the wait has definitely been worthwhile.

Kernow Model Rail Centre kindly loaned us 80419 in classic Royal Mail red livery. This vehicle

was built at BR's York Works as part of a batch of ten Diagram 732 vans that was delivered in November 1968.

You know what you're getting with any member of Bachmann's Mk 1 family, and the Stowage Van doesn't disappoint. It has that classic Mk 1 profile and looks right from every angle. The ends are spot on and mix moulded detail with separately fitted handrails – the Electric Train Heating cables are particularly exquisite. The tiny little windows in the sliding gangway doors are also worthy of note.

SIDE DIFFERENCES

It's on the sides where things get interesting. The arrangement of windows perfectly matches drawings in Keith Parkins'

British Railways Mark 1 Coaches.

You'll notice that the door apertures differ depending on the side from which you're viewing the vehicle. That's because the Diagram 732 vans were designed to be fitted with traductor arms for mail exchanges. This equipment was never fitted (lineside mail exchanges ceased in 1971) but one side has doors with larger, stepped apertures for the gear.

There was not a lot inside a Stowage Van as the space was required for, well, stowing the mail sacks. Despite this, the Stowage Van feels nicely heavy and tips the scales at 157g.

The Royal Mail red livery, introduced in 1986, looks pretty effective. The red and yellow are



“The ends are spot on and mix moulded detail with separately fitted handrails”

perhaps a bit muted but the lettering and Royal Mail logos are crisp. All but the smallest letting is visible to the naked eye, including the posting box.

The good looks and attention to detail is complemented by excellent BR2 heavy duty bogies and a superbly detailed underframe. NEM coupler pockets are mounted on sprung cams.

This is yet another excellent model from Bachmann and a worthy addition, not only to the Sorting Van but to the Mk 1 family as a whole. Recommended. (RF)

REVIEW VERDICT

PROS. Attention to detail, exquisite printing, looks and shape.

CONS. Nothing.

LOOKS	9.5/10
PERFORMANCE	9/10
FEATURES	9.5/10
DECORATION	9/10
VALUE FOR MONEY	9/10

92%

3 things we like



1

The fine Electric Train Heating plugs/sockets and cables.



2

The Royal Mail logo is beautifully printed.



3

Instructions on what mail can be posted on board.



Oxford Rail ScotRail Mk 3a

◆ **SCALE** 'OO' gauge ◆ **MODEL** Oxford Rail OR763C0001 Mk 3a Open Composite 11907, ScotRail livery ◆ **PRICE** £34.95 ◆ **AVAILABILITY** Oxford Rail stockists or www.oxforddiecast.co.uk

The transfer of refurbished HST sets to Scotland to provide high-speed services continues a railway tradition that goes back over half a century. First, it was Gresley 'A4s', displaced by 'Deltics' and other diesels on the East Coast Main Line, to go north in order to power the three-hour expresses from the 'Central Belt' to Aberdeen and Perth.

By the late 1970s, BR was in a bit of a pickle - using 'top and tailed' Class 27 power between Edinburgh and Glasgow high-speed services was no longer a suitable option. It had to invest and thereby created one of the most interesting passenger train configurations to run in the last 40-odd years. BR fitted 12 Class 47/4s with push-pull equipment (soon dubbed 'Shove Duffs') and modified Mk 2f Brake Second Opens with driving cabs to create Driving Brake Standard Opens. In between sat Mk 3 coaches, and the whole ensemble was capable of 100mph running.

BR created ScotRail in 1983,

applying a version of Executive livery to trains north of the border. Symbolically, the red stripe was replaced with blue! Although much plainer than the current 'saltire' livery that Abellio ScotRail uses today, the original ScotRail colour scheme still catches the eye.

DREAM SCHEME

This livery had to be included in Oxford Rail's Mk 3 coach range, and now the first are winging their way to retailers' shelves.

We received Mk 3a Open Composite 11907 for review. The prototype was converted from Open First 11007 (built at Derby in 1974/75) in 1986.

The Mk 3 coach is arguably Oxford Rail's finest model to date. Can it really be almost a year since this model first appeared?

Model Rail's review of the first (MR247) praised the shape, the attention to detail and, in particular, the ends. This ScotRail Mk 3 fulfils Oxford's promise to include variations in the underfloor panels and, unlike the first models, the

footsteps are securely fixed in place. Oxford has also found a way to print the distinctive silver window frames.

Criticism was limited to the fact that there were two three-phase sockets under each end, which was only applicable to HST stock (still present here) and that the tinted window glass also extends to the drop light windows (again, still present). The only other niggle is that the window glass on this sample feels a little loose in the frames.

FINE FINISH

Oxford has done an excellent job of applying ScotRail's livery to the Mk 3. The colours compare well to prototype photographs, although the top grey band is perhaps a touch on the dark side. The ScotRail lettering looks to be of the correct weight and typeface, as are the running numbers. The 'Scotland's railways' panel in the lavatory windows looks excellent under a magnifier and those with eagle eyes will be able to read the seat numbers and 'no smoking'

lettering in the black band.

This is a cracking model. The Open Composite, together with Oxford's forthcoming ScotRail Mk 3 TSOs and First Opens, deserve pairing with Bachmann's '47/7' and Mk 2f DBSO in order to create the perfect 1980s high-speed ScotRail service in miniature. **(RF)**

REVIEW VERDICT

PROS. Attention to detail, exquisite printing, looks and shape.

CONS. Nothing.

LOOKS	9/10
BUILD QUALITY	9/10
FEATURES	8/10
DECORATION	9/10
VALUE FOR MONEY	9/10

88%



3 things we like



1

Scotland's railway lavatory panel.



2

The brake discs are subtle.



3

Fine metal wire toilet roof panel handrails.

Iwata Eclipse CS Airbrush

◆ **PRODUCT** Iwata Eclipse CS airbrush ◆ **PRICE** £185.00

◆ **AVAILABILITY** The Airbrush Company Tel 01903 767800 Web www.airbrushes.com



In an effort to make it easier for customers to choose an airbrush from its various product lines, Iwata – one of the most highly regarded airbrush manufacturers – has introduced a colour-coded system: grey for Absolute Precision; purple for Total Control; turquoise for All-Star Versatility; green for Effortless Coverage and blue for Full Finish.

Sitting squarely in the All-Star Versatility camp is the Japanese-made Eclipse series of tools, with a handful of different options to suit a variety of modelling and craft pursuits. The 'CS' model, reviewed here, is perhaps the most suitable for railway modellers.

This dual-action, internal mix, gravity-fed airbrush sports a 0.35mm diameter needle/nozzle combination for coping with the heavier pigment content of hobby enamels and acrylics, while maintaining

a fine, even spray pattern (provided that the paints have been thinned correctly). The 9ml paint cup is just right, offering enough capacity to avoid constant top-ups without the tool being too heavy or cumbersome. Indeed, it's a very comfortable and well-balanced airbrush, with a smooth yet positive trigger action.

I've been using this airbrush for the past five months, putting it to work on all manner of modelling tasks. It has certainly proved to be a highly versatile tool and equally suited to overall colour coats and delicate weathering tasks. The 0.35mm nozzle means that the spray pattern is fairly narrow, making large-scale coverage a **potentially time-consuming process, especially for 'O' gauge work.** However, for more general painting jobs, a 0.5mm nozzle conversion kit is available as an optional extra, providing users with an economical route to owning two high-quality airbrushes in a single package. Easy to use and simple to

clean, the high-quality materials and workmanship can be readily appreciated when taking the tool apart for maintenance. Super-smooth internal surfaces reduce the likelihood of paint residues building up (a recurring issue with many cheap airbrushes) and the airbrush can be taken apart for a thorough clean in seconds. Solvent-proof seals have been fitted throughout and a ten-year warranty is provided when purchased through The Airbrush Company.

Supplied in a sturdy and attractive foam-lined box, you also get a tube of lubricant to keep the needle and trigger moving smoothly. Equally suited to beginners or professional users, this is a tool that will last – and perform – for a lifetime if suitably cared for. Is this the ultimate general-purpose airbrush? Quite possibly. (GD)

REVIEW VERDICT

PROS. High-quality tool, versatile airbrush, easy to clean/maintain.

CONS. Little of note.



Noch falling tree

◆ GAUGE/SCALE 'OO'/'HO' ◆ MODEL Noch 21929 Micromotion Falling Spruce Profi Tree 17.5cm ◆ PRICE £46.00 ◆ AVAILABILITY www.gaugemaster.com

Noch has released a new product into its range of 'off-track' miscellanea: a falling tree for 'OO' gauge. Adding an extra element of action to any forestry scene, this spruce tree can be operated either manually with an on/off switch or by digital control, using a decoder that's compatible with the Märklin/Motorola and DCC/NMRA formats. It uses a spare locomotive address, with a maximum 16V AC/DC power supply.

Measuring a scale 43ft, this would make an interesting cameo scene for lineside tree cutting as the tree comes with a motor attached to the base of the trunk. After around eight

seconds of the tree being felled it returns to the upright position, allowing the process to be repeated. The motor needs to be hidden below the baseboard or under foliage, and the modeller needs to be careful not to foul the moving parts.

Included with the tree are both an on/off switch and a decoder. The spare red and black wires that you can see in the pictures need to be attached to the accessory side of a transformer. The on/off switch has a screw thread so it could be fixed into a hole in the baseboard or onto your control panel. To make the tree fall,

push the button for a second and, as you release the button, the tree will fall.

The decoder is programmed to make the 'fall' as realistic as possible, and in accordance with real world physics. The tree falls slowly at first, giving the illusion of accelerating under gravity as it approaches the ground. When it hits the earth it bounces slightly, and after around eight seconds (and departing from the rules of real world physics) it automatically returns to the upright position.

It isn't cheap, costing £46, but the chances are you wouldn't want more than one on your layout and if you've got a heavily wooded area this would work well. As well as the lineside cameo mentioned earlier, why not place this tree alongside some non-moving, already felled ones to make it appear as though the wood is being completely cut down? **(PM)**

● You can watch a video of the Noch falling tree here: <https://bit.ly/2GroH6c>

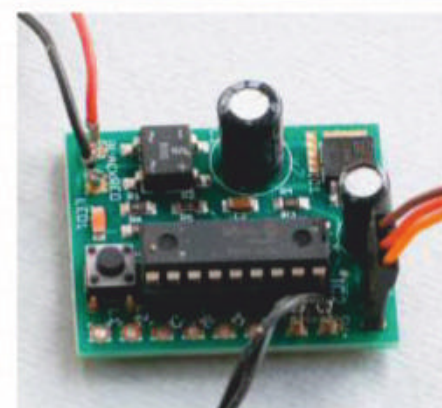
The installation instructions (also in English) can be found at: <https://bit.ly/2TPMjnZ>

“To make the tree fall, push the button for a second”



TAP FOR VIDEO

To see the falling tree in action see *Model Rail*'s digital edition.



REVIEW VERDICT

PROS. A novel way to add movement to a layout. Once installed it is simple to activate the motion.

CONS. Only the cost, but arguably that is reasonable for a unique feature.

Industrial Buildings



KIBRI 39840
OO/HO Substation with electric flashes
£52.68



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OO/HO Vehicle Depot
£53.60



AUHAGEN 11401
HO/OO Loading crane
£21.40



AUHAGEN 80050
OO/HO Modular Building Set
£27.20



KIBRI 39832
OO/HO MIRO tank system
£31.78



VOLLMER 45601
OO/HO Factory on fire
£57.23



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OO/HO garages for 4 trucks
£25.40



AUHAGEN 11422
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£56.30



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£25.40



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The club room

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The Guest Chairman

The Gauge O Guild's **Mike Bragg** takes his turn in the chair, and asks 'why 'O' gauge?'

Society: Gauge O Guild

Established: 1956

Location: International

Chairman: Mike Bragg

When I first started modelling railways, I was told that 'O' gauge was rapidly losing popularity and would soon become extinct. But has this happened?

For decades, modellers have sought ever greater accuracy and realism in their models. This is far easier to achieve in 7mm:1ft than in smaller scales. For scratchbuilders, kit-bashers and modifiers of RTR products, small

details can be fabricated with more accuracy, and positioned with greater precision. Furthermore, they are easier to see and handle. Constructors have an expanding range of kits and bits available to them, and 'O' gauge is no longer restricted to those with a fully equipped engineering workshop and the necessary technical skills.

Over the last few years, there has been an increase in the range of 7mm RTR locomotives, rolling stock and buildings on the market. Major UK and international manufacturers have started offering high-quality products at prices that are beginning to compete with similar items in other scales. 'O' gauge requires fewer items, so costs per square foot of layout are approaching parity with smaller scales. 'O' gauge is no longer the preserve of those with deep pockets.

With fewer items required to fill a given space, less time is spent on routine maintenance, so there is more time for building and operating trains. The larger size gives locomotives and stock real presence and the heft typical of the prototype. Layouts in 7mm don't have to be large to be challenging to build, delightful to operate, and entertaining for exhibition visitors. There's great satisfaction with operating a layout just eight or nine feet long.

Modellers, whether working in standard, narrow or broad-gauge, and representing historical, heritage or present day lines and their operations, are supported by the Guild's range of technical publications. Its website includes a very active online forum. Each quarter, members receive the latest issue of the Gauge O Guild's *Gazette*, packed with colour photographs, reviews of products, descriptions of inspirational

layouts and explanations of construction techniques. There's also a separate newsletter, *Guild News*, which provides details of up-coming events and group meetings.

Since the Guild is a gauge society, it doesn't have a clubroom of its own. However, there are autonomous 'O' gauge groups right across the UK and overseas, some with their own premises housing semi-permanent layouts. There are also 'O' gauge sections within most major clubs, as well as individual members with their own indoor or outdoor lines who host friendly informal get-togethers.

The Guild stages Guildex – its annual exhibition – at the International Centre in Telford over the first weekend in September. Visitors are spoilt for choice as they examine layouts, demonstrations, society stands and traders' stalls.

In addition, the Guild organises two trade shows each year. These have just a few layouts and demonstrators, but offer an extensive range of supplies: everything from raw materials, through components, to museum-quality models. In addition, gauge 'O' groups and clubs stage special events and 7mm festivals.

The growing number and diversity of models and modellers is proof that the 'demise of 'O' gauge' has been averted.

Why not join us?

Address: (Administration Office)
Guild Admin, 6 Kings Buildings, Hill Street,
Lydney, Gloucestershire GL15 5HE

Telephone: 0845 603 6213

E-mail: enquiries@gaugeOguild.com
(that's an 'O' not a zero!)

Web: www.gaugeoguild.com

Membership fees

Ordinary: £26 (overseas £31)

Retired: £23 (overseas £28)

Junior: £5

Above and below:
Mike Bragg's
'Wellington Street'



BOTH: CHRIS NEVARD

Tramway Village to hold model days

Crich Tramway Village is to operate its collection of large-scale model trams, built by the late Robert Whetstone and David Gould, on selected dates between April and October. The model trams will be in action on April 14, May 19, June 16, July 14, September 21/22 and October 13. Normal museum entry charges apply. For details visit www.tramway.co.uk or call 01773 854321.

'N' gauging event

Great Eastern Models seeks 'N' gauge layouts in the Norwich area to display at a special 1:148 event on Thursday April 11. One layout already booked is Ray Taylor and Anna Bass' 'Ambleton Vale'. If you are interested in featuring your layout, contact Great Eastern Models at 199 Plumstead Road, Norwich NR1 4AB or call 01603 431457.

■ 'Ambleton Vale' is due to star in this year's *Great British Model Railways*. It goes on sale on May 1.



CHRIS NEVARD

Date for the diary

'N' gaugers need to get their diaries out: the International N Gauge Show returns to the Warwickshire Event Centre, near Leamington Spa, on September 14/15 2019.

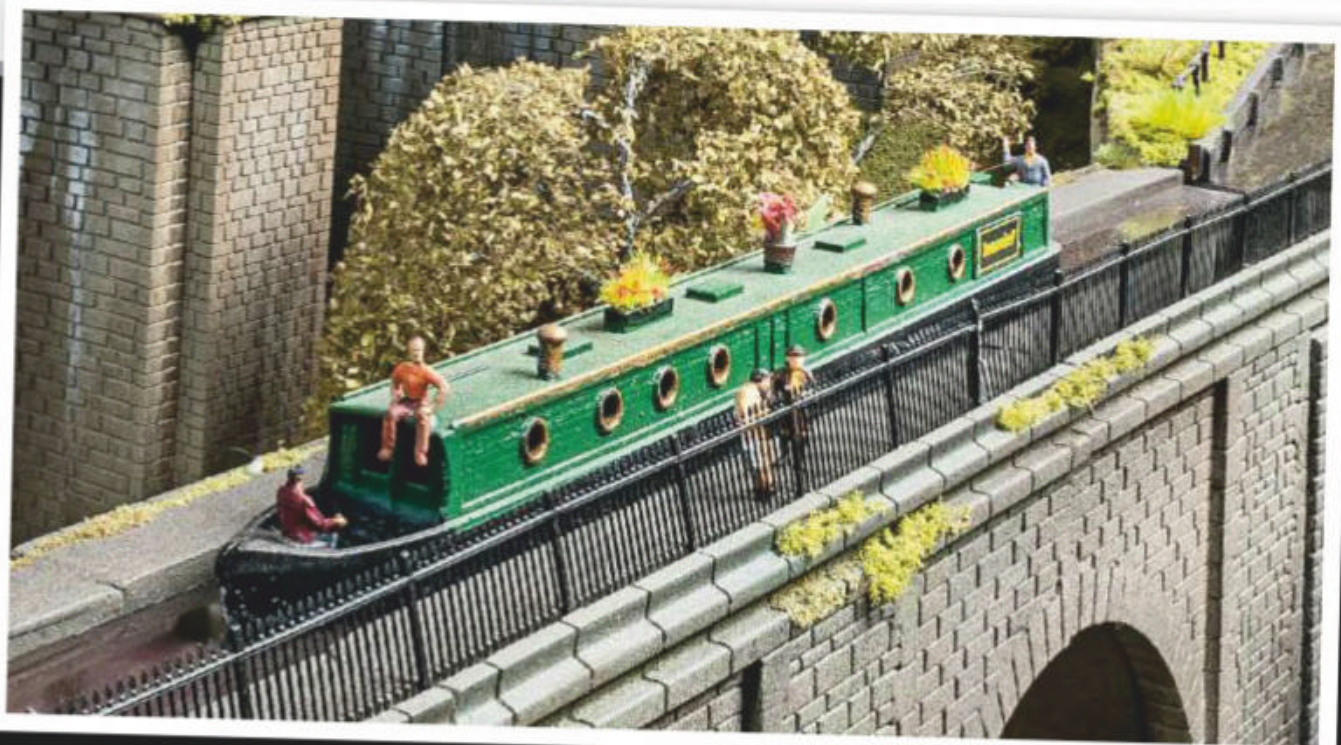
Organisers expect over 40 specialist suppliers to be present and over 30 layouts have already been booked, depicting modern, steam, North American, and continental railways. For more information and to book tickets, visit www.ngaugeshow.co.uk



Caption that pic!

You've been busy on social media coming up with barmy suggestions to caption the photograph (below) that featured in last month's issue.

The reader that made us chuckle most was **Dansodor4472**, so congratulations! This month we want you to caption the picture on the right. Keep an eye on our social media pages for more pictures to caption - but remember, it's just for fun!



"Telegram for M. Trout, please hold the line."
Dansodor4472

Last month's responses

"Oh heaven's it's that *Model Rail* photographer again."
Andrew Strathie

"I've been here all day and the only fish I've seen was a rake of catfish ballast hoppers being dragged over the bridge!"
Alistair Foden

"Damn! Every time I cast my line, the hook bounces off that resin!"
Colin Smith

"This ol' fly fishing lark ain't working. All I've caught was fish and not a single fly."
Ruby Bones



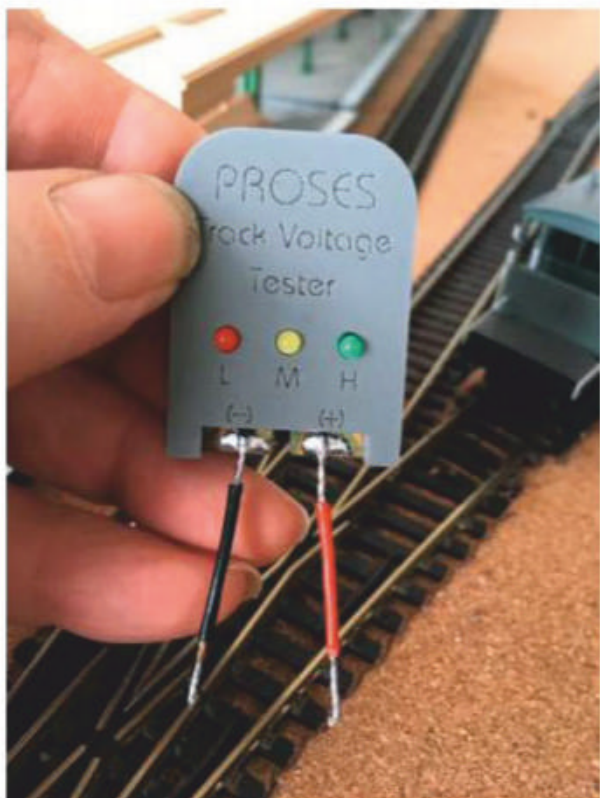
Show & Tell

The place to share your projects with the *Model Rail* community.

Useful contacts

Robert Evans

I have a Proses track voltage tester which I find very useful, except when you want to check your point rails, as the plastic part just gets in the way when you are trying to make contact. To overcome this I soldered two wires to the contact bar and now I can get into any awkward space. It does not matter what colour wires you solder to the tester - they could be both the same if you wished.



It's the cat's whisker

Laurie Calvert

'Micro Modelling' - It's the name I've given to modelling a tiny thin fishing line in 'OO' gauge. The rod was made from a cat's whisker. My cat, Pixel, dropped it, so I thought I could use it for something. It has a natural bend and looks as if something was on the other end. But then I thought I would try and add a line by using contact

adhesive, as it is very stringy. It dried in seconds too. So far it is holding. When I last saw Chris Nevard he said he thinks it might last a long time as he sees strings of glue on layouts all the time when he photographs them. This is a very, very thin line, just a fraction of a millimetre thick, and I thought I'd share the idea.



Line cider

George Lowen

I'm a member of Nailsea & District Model Railway Club, and I enjoy building small layouts.

Our chairman asked me to build a diorama for our Christmas meeting, so I built one in 'OO' gauge, depicting a railway servicing a cider brewer's warehouse. It measures just 10in by 4in.

I had most of the bits I needed already - rails, plastikard and cardboard - and all I had to buy was a second point, which cost me £5. And that's why I decided to call it 'Cheaply Dun'.

The fiddleyard consists of a Peco locomotive lifting cradle on a piece of wood.

The diesel shunter has one of the twin bogies of an Athearn 40-ton switcher and the body is scratchbuilt of plastic card. The wagons consist of two limited-edition wagons - a Thatcher box van and a Thatcher six-wheel tank wagon. These can be changed with other limited edition wagons from my collection.

Outdoor pursuits

Peter Sharpe

Over the last few years I have been 'experimenting' (as in playing) with a garden railway. It was to be 'a bit of fun', not a serious scale model, of course, since the plants and foliage are way too big. Against that, the space available means that the scale track length can represent a few kilometres, rather than 500 metres at 'OO' gauge. I chose 'OO' for cost reasons, and because the family already had a selection of rolling stock at that scale.

The first task was to make a detailed plan of the garden, including the locations of plants and other immovable features. I then decided on a track route, and began negotiations with the authorities (as in my partner) over compulsory purchase orders for plants which could not be circumnavigated!

Regarding the electric power supply, I initially used conventional pick-ups from the track (not DCC). I bridged all fishplates with soldered wires, and ran a cable down the garden to avoid voltage-drop problems. Initially I was satisfied with the result, but the track needed laborious cleaning before use, and the locomotive wheels needed regular attention. These problems led me to consider



on-board battery power and radio-control. I have converted four locomotives now to this system (obtained from Micron Radio Control). Of course it removes the need for any wiring and isolation switches in the outdoor environment, and several locomotives can be run on the same track, which is particularly useful on the long tracks available in the garden.

All in all I'm getting a lot of fun out of the hobby and my visiting grandchildren are very appreciative, but as with any outdoor activity, we are always at the mercy of our British weather!



Letters

Cleaner option

Mike Clifford

In response to the letter from David Harfield published in the previous issue (March 2019) I can recommend the Beldray battery-powered vacuum cleaner. The battery has good charge retention, rapid recharging, good suction and nuts and bolts are easily recovered if they are collected by accident. One charge lasts long enough to clean my 'EM' gauge layout (some 16ft by 11ft) in the loft, and can be used to clean the floor as well. It might dislodge loose bits of ballast, and is possibly a bit cumbersome for tight areas rich in delicate items, such as signals, telegraph poles, etc, but I am completely satisfied with mine which I bought about 15 months ago.



CHRIS NEVARD

'Polwyddelan' fan

Frank Everett

Heaven forbid that I should ever say that 'Granddad Trains' has got it wrong but I suspect that he was being a little too self-critical in his column in *Model Rail* 257 (February).

I attended the Wycrail exhibition last November and greatly admired his 'Polwyddelan' layout. It is not just layouts with lots of trains moving that attract visitors, although these are essential to a successful exhibition, along with an plentiful supply of bacon rolls and gallons of tea. Artistry in the display of the layout will also bring admiring gasps and the need for closer inspection to see things missed on first glance.

'Polwyddelan' contains so much to look at' from the Harry Potter references in shop names to the idyllic look of the whole display. The fact that it also occasionally runs a train is almost incidental.



Exhibition Diary

What's on in your neck of
the woods this month

MARCH 16

ABINGDON OXON. Abingdon & District MRC. Abingdon College OX14 1GG. **Time:** 1000-1700. **Admission:** Adult £8. **E-mail:** pthunt.mrc@outlook.com **Web:** www.admrc.org.uk

TADWORTH, SURREY. Tadworth MRE. The Good Shepherd Church Hall, Station Approach Road, Tadworth KT20 5AH. **Time:** 1000-1700. **Admission:** Adult £6, Concession £5, Child £3. **Tel:** 0775 8458827. **Web:** www.ndmrc.info

MARCH 16-17

LEAMINGTON SPA, WARKS. Midlands Garden Rail Show. The Warwickshire Event Centre, Fosse Way, nr Leamington Spa CV31 1XN. **Time:** 1000-1600 (both days). **Admission:** (Online/Door) Adult £8/£9, Senior £7/£8, Child £3/£4. **Web:** www.midlandsgardenrailshow.co.uk

NOTTINGHAM. Nottingham MRS. Highbank Community Centre, Farnborough Road, Clifton NG11 9DG. **Time:** Sat 1000-1700, Sun 1000-1600. **Admission:** Adult £4, Child £1. **Web:** www.nottingham-modelrailway.org.uk

MARCH 17

SUDBURY, SUFFOLK. MRE. Acton Village hall, High Street, Acton, nr Sudbury CO10 0AT. **Time:** 1000-1600. **Admission:** Adult/Concession £3, Child £1. **Tel:** 07961 258299.

MARCH 23

TRIMLEY ST MARY, SUFFOLK. Felixstowe N Gauge MRG Open Day. The Welcome Hall, High Rd, Trimley St Mary IP11 0NT. **Time:** 1000-1600. **Tel:** 01349 277211. **Web:** www.felixstowengauge.org.uk

MARCH 23-24

BRIERFIELD, LANCS. Brierfield MRC MRE. St Luke's Church Hall, Brierfield, Nelson BB9 5JW. **Time:** Sat 1000-1700, Sun 1000-1600. **Admission:** Adult £4, Senior £3, Child £2, Family £10. **Tel:** 07770 331348. **Web:** www.pfmrs.org.uk

GOOLE, YORKS. Carlton Railway Society MRS. The Shire Hall, Market Place, Howden DN14 7BJ. **Time:** Sat 10-1700, Sun 1000-1600. **Admission:** Adult £5, Concession £4, Child £2. **Tel:** 01405 792476.

SALISBURY. MRE. Michael Herbert Hall, South Street, Wilton, nr Salisbury SP2 0JS. **Time:** 1000-1700. **Admission:** Adult £4, Child £2. **Tel:** 01980 610346. **E-mail:** p.parrish324@btinternet.com

MARCH 30

BELPER, DERBYSHIRE. Belper MRG MRE. Strutts Centre, Derby Road, Belper DE56 1UU. **Time:** 1000-1630. **Admission:** Adult £4, Child £2. **Tel:** 07866 689004.

MARCH 30-31

SHEFFIELD. Sheffield MRE. Birkdale School, Oakholme Road, Sheffield S10 3DH. **Time:** Sat 1000-1700, Sun 1000-1630. **Web:** www.sheffieldmodelrailwayenthusiasts.com

TAUNTON. Taunton MRG Open Days. Platform 1, Bishops Lydeard Station, West Somerset Railway, Bishop's Lydeard, Taunton TA4 3BX. **Time:** 1030 1600 both days. **Admission:** Adult £1.50, Child 50p.

APRIL 6

BECKENHAM, KENT. Beckenham and West Wickham MRC Vintage MRS. St John's Church, Eden Park Avenue, Eden Park, Kent BR3 3JN. **Time:** 1000-1700. **Admission:** Adult £6. **Tel:** 07545 469610. **Web:** www.bwwmrc.co.uk

NEWPORT, WALES. Newgog - the South Wales O Gauge Show. Lysaght Institute, Orb Drive, Newport NP19 0RA. **Time:** 1000-1630. **Admission:** Adult £6, Senior/Gauge O Guild member £5. **Tel:** 07896 967526. **E-mail:** driverlewis2004@yahoo.co.uk

PITSTONE, BEDS. Beacon-Rail 2019. Pitstone Memorial Hall, Vicarage Road, Pitstone LU7 9EY. **Time:** 1030-1630. **Admission:** Adult £3, Child £1.50, Family £7. **Tel:** 01525 850703. **Web:** www.tdmrc.co.uk

PURLEY, SURREY. East Surrey N Gauge and N Gauge Forum, Riddlesdown Collegiate, Honister Heights, Purley CR8 1EX. **Time:** 1000-1600. **Admission:** Adult £7.50, Child £3, Family £20. **E-mail:** bart.hyd@gmail.com **Web:** www.ngaugesoutheast.co.uk

SAWSTON, CAMBS. Cambridge MRC MRE. Sawston Village College, New Road, Sawston CB22 3BP. **Time:** 1000-1600. **Admission:** Adult £5, Child £2. **E-mail:** modelrail.club31a@ntlworld.com **Web:** www.cambridge31a-mrc.org.uk

LONDON. Hillingdon Railway Modellers Test Track Open Day. Yiewsley Baptist Church Hall, 74 Colham Ave, Yiewsley, Hillingdon UB7 8HF. **Time:** 1000-1500. **Admission:** £5. **Tel:** 0208 368 4090. **Web:** www.hillingdonrailwaymodellers.co.uk

APRIL 6-7

CHELTENHAM. Cheltenham GWM Group. St Margaret's Hall, Coniston Rd., Off Windermere Rd, Hatherley, Cheltenham GL51 3NU. **Time:** Sat 1000-1700, Sun 1000-1630. **Admission:** Adult £5, Child £2.50, Family £10. **Tel:** 01242 517788. **Web:** www.cheltmodrail.org.uk

COTGRAVE, NOTTS. Bingham MRC MRS. Cotgrave Welfare, Woodview, Cotgrave NG12 3PJ. **Time:** Sat 1000-1700, Sun 1000-1630. **Admission:** Adult £5, Concession £4, Child £3, Family £12. **E-mail:** circsel@btinternet.com

NAILSEA, BRISTOL. Nailsea and District MRE. Nailsea School, Mizzymeade Road, Nailsea BS48 2HJ. **Time:** Sat 1030-1700, Sun 1000-1600. **Admission:** Adult £6, Child £2, Family £14. **E-mail:** defiance149@googlemail.com

APRIL 13

BASINGSTOKE. Basingstoke & N Hants MRS Open Day. The Old Scout Hut, Stratton Park, off Pack Lane, Basingstoke RG22 5HN. **Time:** 1030-1530. **Admission:** Free. **Tel:** 07904 231961. **Web:** www.basingstokemrs.org

HEYWOOD, LANCS. HMRG Open Day. Club Rooms, Unit 4, Park Works, River Street, Heywood, OL10 4AB. **Time:** 1000-1600. **Web:** www.hmrg.co.uk

WELWYN GARDEN CITY. De Havilland MRS MRE. Ludwick Way Methodist Church, Ludwick Way, AL7 3PN. **Time:** 1000-1700. **Admission:** Adult £5, Child £2. **Tel:** 01707 267541.

APRIL 13-14

BANGOR. North Down MRS MRE. Bangor Grammar School, Gransha Road, Bangor BT19 7QU. **Time:** Sat 1000-1700, Sun 1200-1700. **Admission:** Adult £5, Child £4, Family £15. **Tel:** 02891 450833. **Web:** www.northdownmodelrailwaysociety

GTR MANCHESTER. Tame Valley Scout Council Rail Road 2019. Astley Sports College, Yew Tree Lane, Dukinfield SK16 5BL. **Time:** Sat 1000-1730, Sun 1000-1630. **Admission:** Adult £5, Concession £4, Child £1, Family 10. **Tel:** 0161 338 5097.

GATESHEAD. North East N Gauge Society MRE. The Masonic Hall, Alexander Road, Gateshead NE8 1RB. **Time:** Sat 1000-1700, Sun 1000-1600. **Admission:** Adult £3, Child £1.50, Family £6. **Tel:** 07762 595368. **E-mail:** i.d.holmes@btinternet.com

HORSHAM, SURREY. Crawley MRS MRE. Tanbridge House School, Guildford Rd, Horsham RH12 1SR. **Time:** Sat 1000-1700, Sun 1000-1600. **Admission:** Adult £6, Child £4, Family £17. **Tel:** 07411 353757. **Web:** www.crawleymrs.org.uk

MARYPORT, CUMBRIA. Maryport Model Club MRE. Netherhall School, Netherhall, Maryport CA15 6NT. **Time:** Sat 1000-1630, Sun 1000-1600. **Admission:** Adult £5, Child £2, Family £12. **Tel:** 01900 813661.

APRIL 14

EARDISLAND, HEREFORDSHIRE. Herefordshire Borders O Gauge Group. Eardisland Village Hall, Eardisland, nr Leominster HR6 9BP. **Time:** 1000-1630. **Admission:** £2.50. **Tel:** 01544 387972. **E-mail:** doutantrum@hotmail.com

APRIL 20

SPEY BAY, MORAY. MRS. Spey Bay Village Hall, Moray IV32 7PJ. **Time:** 1000-1500. **Admission:** £2. **Tel:** 07948 899943. **Web:** www.buckiemodelcentre@gmail.com

APRIL 20-22

GAINSBOROUGH, LINCS. Gainsborough MRS MRE. Florence Terrace, Gainsborough DN21 1BE. **Time:** Sat-Sun 1330-1730, Mon 1030-1730. **Admission:** Adult £4, Senior £3, Family £10. **Tel:** 01427 610475. **Web:** www.gainsboroughmodelrailway.co.uk

APRIL 21

CANVEY ISLAND, ESSEX. Canvey Island Transport Museum MRS. 105 Point Rd, Canvey Island SS7 5TD. **Time:** 1000-1630. **Admission:** Adult £3.50, Senior £2, Child £1. **Web:** www.castlepointtransportmuseum.co.uk

APRIL 21-22

WEXFORD, IRELAND. Wexford MRC MRE. St Joseph's Community Centre, Bishopswater, Wexford. **Time:** Sun 1200-1800, Mon 1100-1700. **Admission:** Adult €8, Child €3, Senior €5, Family €16. **Web:** www.facebook.com/wexfordmodelrailwayclub

APRIL 27

FLITWICK BEDS. Luton MRC 'O' Gauge MRE. Flitwick Village Hall, Dunstable Road, Flitwick MK45 1HP. **Time:** 1000-1630. **Admission:** Adult £5, Child £2, Family £10. **Tel:** 01582 413200. **Web:** www.lutonmodelrailwayclub.org.uk

LLANTWIT FARDRE, CARDIFF.

Pontypridd MRC MRE. Crown Hill Community Centre, Llantwit Fardre CF38 2NA. **Time:** 1000-1600. **Admission:** Adult £3. **Tel:** 01443 217511. **E-mail:** philgerrish9@gmail.com

STOURPORT-ON-SEVERN, WORCS.

Wyre Forest MRC, Stourport Community Centre, Lower Lickhill Rd, Stourport-on-Severn DY13 8RW. **Time:** 1000-1600. **Admission:** £2. **Web:** www.wyreforestmrc.com

COVENTRY. Coventry and Warwickshire O Gauge Modellers Spring Open Day. The Church of the Holy Cross, St Austel Road, Wyken, Coventry CV2 5AE. **Time:** 1000-1500.

APRIL 27-28

EWELL, SURREY. Epsom & Ewell MRC The Epsom Show. North East College of Technology, Reigate Road, Ewell, Surrey KT17 3DS. **Time:** Sat 1000-1730, Sun 1000-1700. **Admission:** Adult £7. **Tel:** 01483 576274. **Web:** www.eemrc.org.uk

HELSTON, CORNWALL. Helston & Falmouth MRC MRS. Helston Community College, Church Hill, Helston TR13 8NR. **Time:** 1000-1700, Sun 1000-1600. **Admission:** Adult £5, Child £3, Family £10. **Web:** www.hfmrc.com

ROMFORD, ESSEX. Ilford & West Essex MRC MRE. St Edward's Senior School, London Road, Romford RM7 9NX. **Time:** Sat 1000-1700, Sun 1000-1600. **Admission:** Adult £6, Concession £5, Child £3, Family £15. **Tel:** 01708 701290. **Web:** www.iwemrc.org.uk

SHEFFIELD. Neepsend MRS MRE. Park Centre, Samson St, Sheffield S2 5QT. **Time:** 1000-1700, Sun 1000-1630. **Admission:** Adult £5, Child £2, Family £12. **Web:** www.neepsendmrs.weebly.com

SUTTON COLDFIELD, WEST MIDS.

Sutton Coldfield Railway Society MRE. Bishop Walsh School, Wylde Green Road, Sutton Coldfield B76 1QT. **Time:** Sat 1000-1700, Sun 1000-1600. **Admission:** Adult £5, Concession £4. **Web:** www.scrs.club

APRIL 28

KEIGHLEY. KMRC Open Day. Knowle Mills, South Street, Keighley BD21 1SY. **Time:** 1000-1630. **Admission:** Adult £3.50, Child £2.50.

MAY 4

LUTTERWORTH, LEICS. Lutterworth Railway Society MRE. The Lutterworth Sports Centre, Coventry Rd, Lutterworth LE17 4RB. **Time:** Sat 1030-1700, Sun 1000-1600. **Admission:** Adult £7, Child £3, Family £12. **Tel:** 01788 310354. **Web:** www.lutterworthrailwaysociety.co.uk

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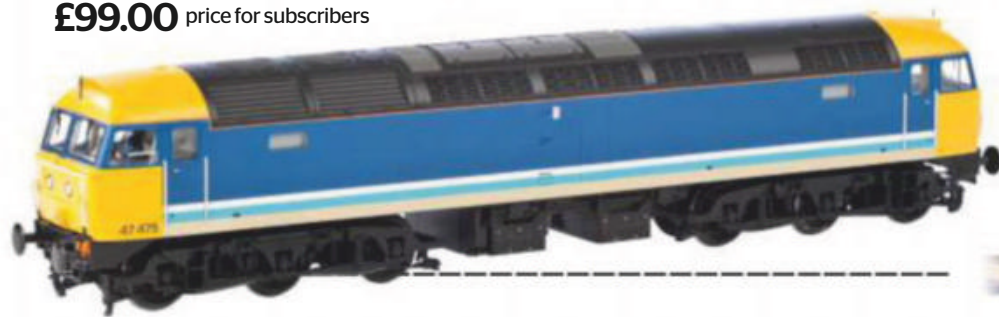
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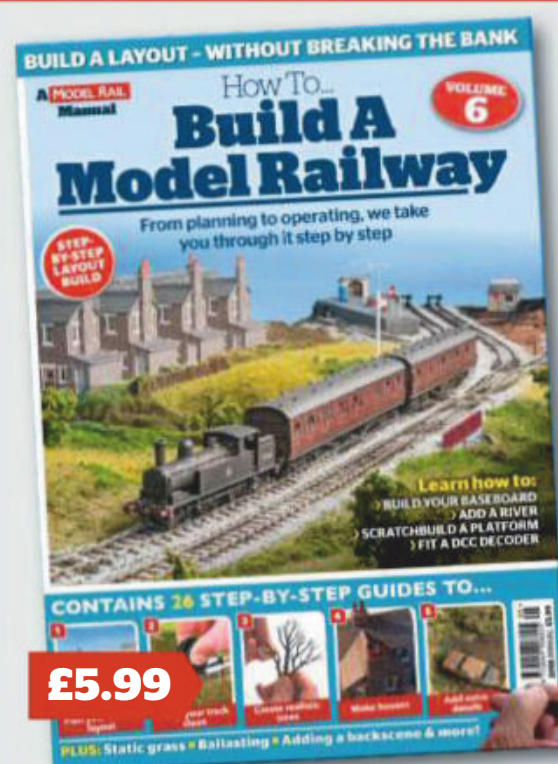
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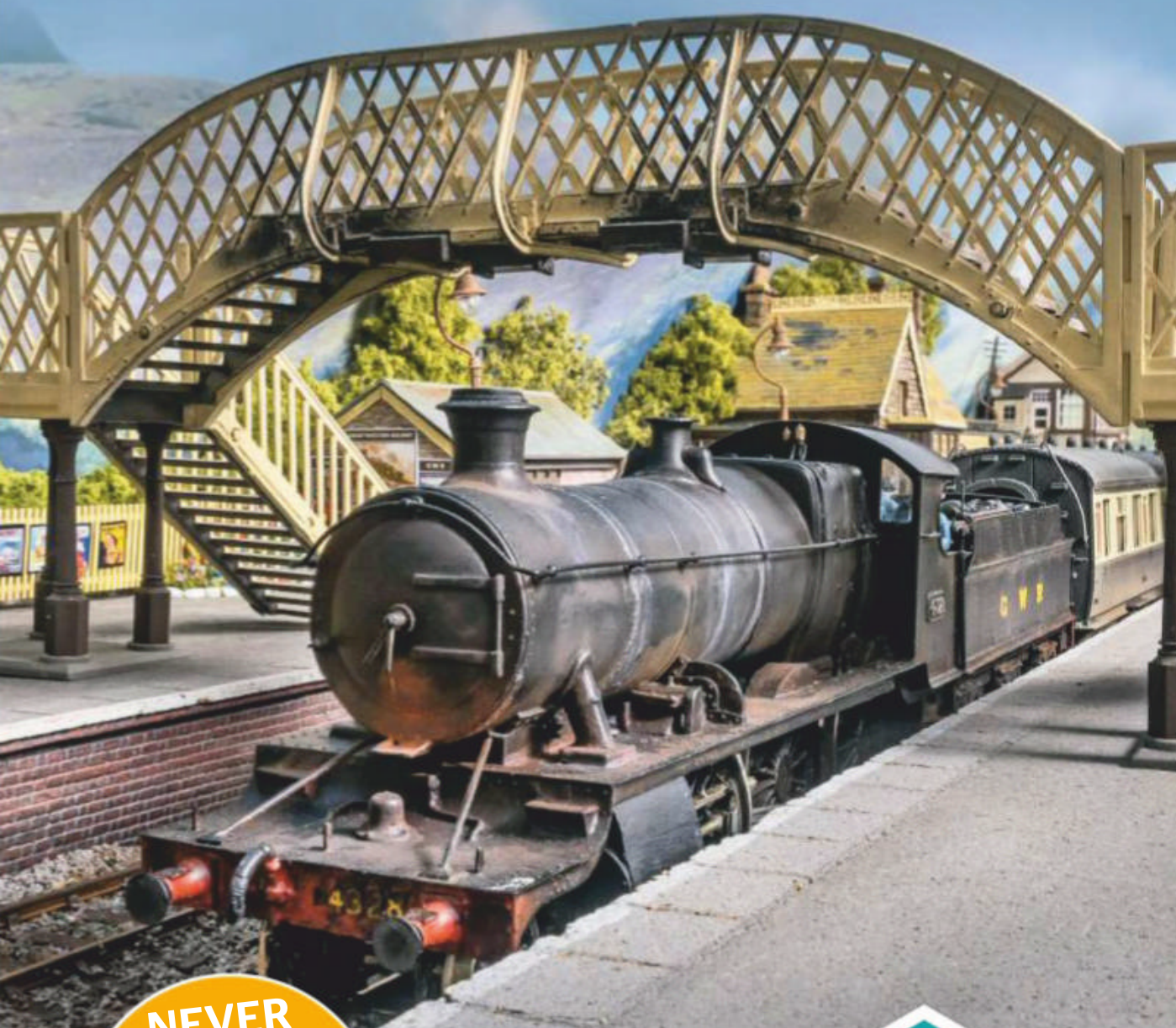
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Next Issue

ON SALE
APRIL
11

A mining town in miniature

Phil Coggan impressed us with his 'OO' gauge South Wales colliery layout 'Pen Y Bryn' in 2014... now he's made it even bigger and better. Find out more next month.



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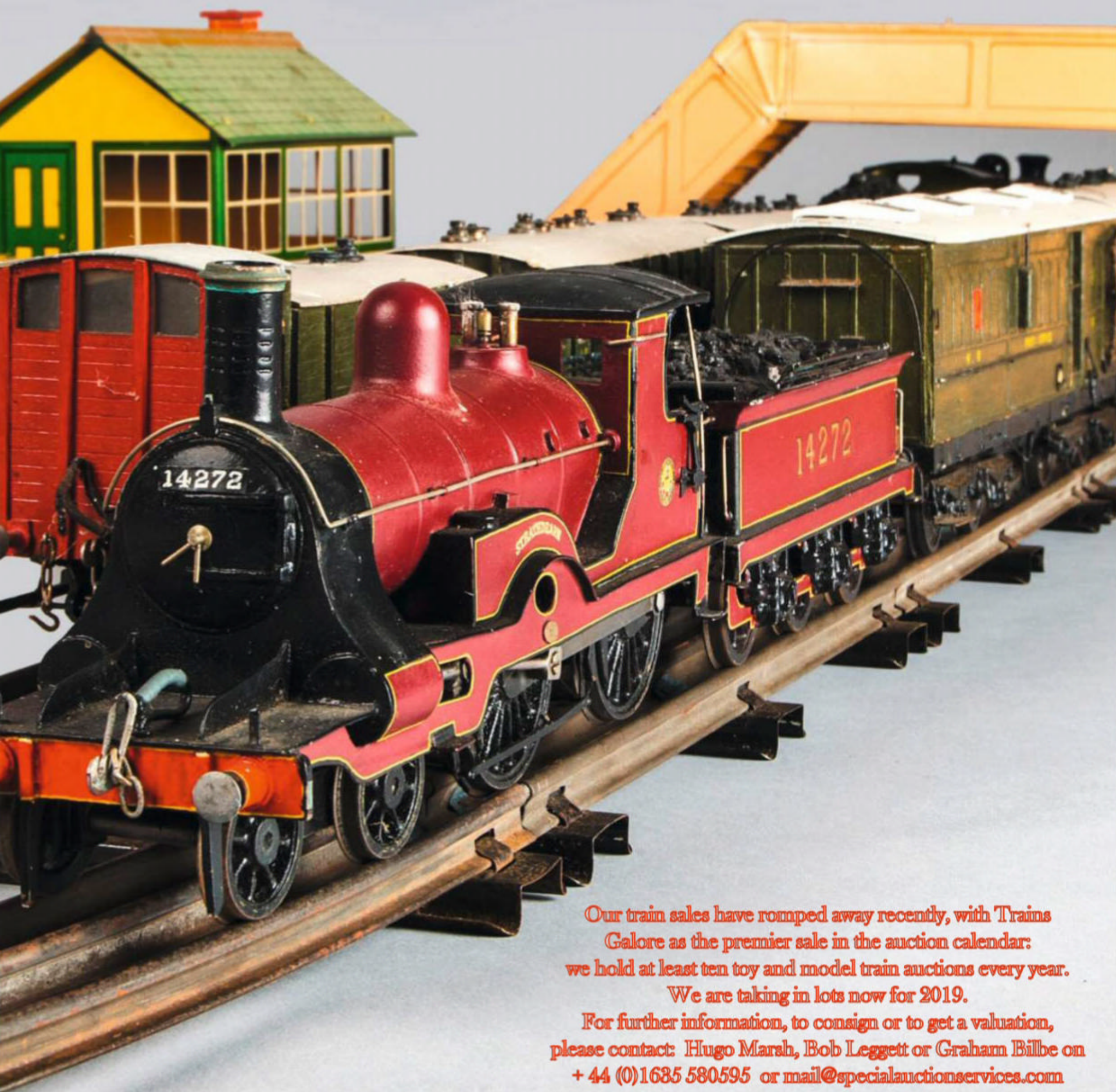
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Trains Galore 11 & 12 December
Trains 29 January
Glorious Trains 16 April



Our train sales have romped away recently, with Trains Galore as the premier sale in the auction calendar: we hold at least ten toy and model train auctions every year.

We are taking in lots now for 2019.

For further information, to consign or to get a valuation, please contact: Hugo Marsh, Bob Leggett or Graham Bilbe on + 44 (0)1635 580595 or mail@specialauctionservices.com

81 Greenham Business Park, Newbury RG19 6HW

THIS MONTH AT

Compiled between 24th January 2019 and 19th February 2019



Latest News



Hattons O Gauge Class A3

We have now received the first painted samples of our forthcoming Class A3 locos in O Gauge. See hi-res images online.

www.hattons.co.uk/tmah2



Oxford Rail Railgun

The first version of this incredibly impressive and detailed model is now available. See more pictures online.

www.hattons.co.uk/tmah7



Dapol OO LSWR B4 Batch 2

A new batch of LSWR B4 locomotives was announced by Dapol on 15th Feb. Explore the new additions and pre-order online.

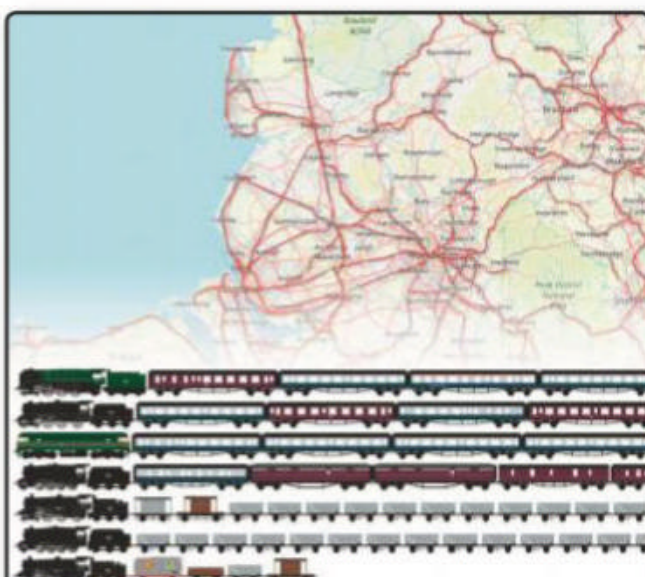
www.hattons.co.uk/tmah8



Model of the Year Results

Results have now been released and we're so happy to have won 5 gold and 3 silver awards. Thank you to everyone who voted.

www.hattons.co.uk/tmah9



North West Era 6 Formations

The transition era saw iconic BR steam and diesel locomotives running alongside each other. See example formations online.

www.hattons.co.uk/tmah10



Scottish Era 8 Formations

Scotland saw a variety of diesel haulage in the 1980s/90s making it incredibly popular with modellers. Explore this era online.

www.hattons.co.uk/tmah11

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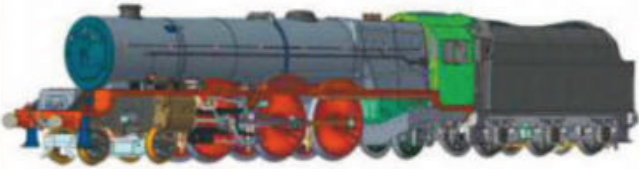
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R3709 6201 "Princess Elizabeth" in LMS crimson lake
R3711 46206 "Princess Marie Louise" in BR express passenger blue
R3713 46207 "Princess Arthur of Connaught" in BR maroon

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R3767 32655 in BR black with early emblem
R3768 32636 in BR black with late crest
R3780 655 "Stepney" in LBSCR improved engine green
R3781 5 "Rolvenden" in Kent and East Sussex Railway blue
R3782 751 in South Eastern and Chatham Railway green
R3783 2662 in Southern Railway olive green

Class 5101 'Large Prairie' 2-6-2T

Pre-order from £126. DCC-fitted £144
Due in Stock July to September 2019



R3719 4154 in GWR green
R3721 6110 in GWR green
R3723 6145 in BR black with early emblem
R3725 4160 in BR lined green with late crest

4wDM Ruston 48DS

Pre-order for £72.
Due in Stock July 2019



R3704 269595 in pale green
R3705 458957 in John Dewar and Sons red
R3706 Army 802 in War Department green
R3707 "Queen Anne" in Longmorn Distillery livery

Class B2 Peckett 0-6-0ST

Pre-order from £99. DCC fitted for £117
Due in Stock April 2019



R3693 No.4 "Sherwood" in Sherwood Colliery lined green
R3694 "Westminster" in Associated Portland Cement green
R3695 1455 in National Coal Board lined blue

Mk3 Sliding Door coaches

Pre-order for £31.50.
Due in Stock June to November 2019



36 versions now available to pre-order. Liveries include: GWR, ScotRail and Cross Country. Numerous vehicles types available to allow prototypical formations.

dapol Forthcoming Items

See the full range of forthcoming items from Dapol at www.hattons.co.uk/dapolpreorders

N Gauge

Class 50

Pre-order from £123.21
Due in Stock: March 2019



2D-002-000 D406 in BR blue - unrefurbished
2D-002-001 50043 in BR blue - unrefurbished
2D-002-002 50040 "Leviathan" in BR large logo blue
2D-002-003 50037 "Illustrious" in original Network SouthEast livery

Class 68

Pre-order from £108.79
Due in Stock: June 2019



2D-010-008 67006 "Royal Sovereign" in Royal Trail livery
2D-010-009 67027 "Charlotte" in Colas Rail Freight livery
2D-010-010 67021 in Belmond British Pullman umber and cream
2D-010-010 67029 "Royal Diamond" in DB silver

OO Gauge

Class 43xx GWR Mogul 2-6-0

Pre-order from £135.96
Due in Stock: TBC



4S-043-001 6336 in GWR green with Great Western lettering
4S-043-002 6385 in GWR green with shirtbutton emblem
4S-043-003 GWR green with BR smokebox numberplate
4S-043-004 7324 in BR black with early emblem
4S-043-005 6364 in BR lined green with early emblem
4S-043-006 7310 in BR lined green with late crest

Class 59

Pre-order from £124.43
Due in Stock: Feb/March 2019



4D-005-000 59002 "Alan J Day" in Foster Yeoman livery
4D-005-001 59103 "Village of Mells" in ARC livery
4D-005-002 59206 "John F Yeoman" in DB Schenker livery
4D-005-003 59204 "Vale of Glamorgan" in National Power livery

O Gauge

Class Y3 Sentinel 4wVB

Pre-order from £148.75
Due in Stock: June 2019



7S-005-001 42 in LNER black
7S-005-002 68163 in LNER black
7S-005-003 7164 in LMS black
7S-005-004 7160 in LMS black
7S-005-005 68164 in BR black with early emblem
7S-005-006 2 "Isebrook" in GWR green
7S-005-007 14 in National Coal Board livery

BR Mark 1 coaches

Pre-order for £169.15
Due in Stock: July 2019



BSK, SO, SK and CK coaches available in multiple liveries, including: BR crimson and cream, BR green, BR chocolate and cream, BR maroon and BR blue & grey.
All codes start 7P-001-XXX

**Pre-orders accepted
via credit or debit card only**
Pre-order prices subject to manufacturer RRP.



Welcome to our project update feature, with the latest status of forthcoming releases from all major manufacturers. Use it to see the progress of projects you are interested in. The web address in the "link" column can be used to view products online, and to place your preorders.

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Widnes, WA8 8FZ

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Mon to Sat 7:30am-6pm Mon to Sun 9am-5pm
Sun 9am-5pm

	Link	Price	Date announced	CAD done	In Tooling	Seen 1st EP	Decorated samples	In production	On Board Ship	Released
Mk2F Aircon Coaches	hattons.co.uk/mk2f	from £46.71	Mar 2013							
Class 90	hattons.co.uk/c90	from £152.96	Jul 2014							
Class 117 DMU	hattons.co.uk/c117	£254.96	Sep 2015							

	Link	Price	Date announced	CAD done	In Tooling	Seen 1st EP	Decorated samples	In production	On Board Ship	Released
YCV Turbot Ballast wagon	hattons.co.uk/tur	£21.21	Apr 2014							
N Gauge Class 142	hattons.co.uk/c142	from £115.18	Jan 2011							
Bogie Bolster 'E' wagon	hattons.co.uk/bolstere	£25.45	Sep 2018							
Class 59	hattons.co.uk/dapol59	from £124.43	Oct 2015							
GWR Class 43xx 2-6-0	hattons.co.uk/dapol43xx	from £135.96	Dec 2017							

	Link	Price	Date announced	CAD done	In Tooling	Seen 1st EP	Decorated samples	In production	On Board Ship	Released
Rail Head Treatment Train (RHTT)	hattons.co.uk/RHTT	from £118	Nov 2017							
FEA Intermodal Wagons	hattons.co.uk/FEA	from £32	Nov 2017							
O Gauge Class A3/A4	hattons.co.uk/recordbreakers	£750	Aug 2016							
Class 66	hattons.co.uk/66	from £150	May 2018							

	Link	Price	Date announced	CAD done	In Tooling	Seen 1st EP	Decorated samples	In production	On Board Ship	Released
O Gauge Class 50 (Refurbished)	hattons.co.uk/hel50	£560	Apr 2017							
O Gauge Class 37/4	hattons.co.uk/hel374	£560	Nov 2017							
Class 86/0	hattons.co.uk/hel86	£145 (EST)	Nov 2018							
Class 25/3	hattons.co.uk/253	£129 (EST)	Jul 2018							
GWR AEC Railcar	hattons.co.uk/gwraec	£115 (EST)	Sep 2018							

	Link	Price	Date announced	CAD done	In Tooling	Seen 1st EP	Decorated samples	In production	On Board Ship	Released
Class A1/A1X Terrier 0-6-0T	hattons.co.uk/hornbyterrier	from £81	Jan 2019							
Peckett B2 Class 0-6-0ST	hattons.co.uk/peckettb2	from £89	Jan 2019							
4wDM Ruston & Hornsby 48DS	hattons.co.uk/ruston48ds	£72	Jan 2019							
LMS 'Princess Royal' 4-6-2	hattons.co.uk/princessroyal	from £171	Jan 2019							
GWR 'Large Prairie' 2-6-2T	hattons.co.uk/hornbyprairie	from £126	Jan 2019							

	Link	Price	Date announced	CAD done	In Tooling	Seen 1st EP	Decorated samples	In production	On Board Ship	Released
GER/LNER Class N7 0-6-2T	hattons.co.uk/oxN7	from £87	Jan 2017							
BL 18" Howitzer Railgun	hattons.co.uk/railgun	from £42.50	Jan 2018							
LNER Class J27 0-6-0	hattons.co.uk/oxj28	from £94	Jan 2019							



Shows the stage the project is at based on the information available to us. CAD: Computer Aided Design. 1st EP: First Engineering Prototype. TBC: Price is yet To Be Confirmed (EST): Price is estimated.

You can view extended lists, preorder & comment on all of these projects at

www.hattons.co.uk/projectupdates

Information correct at the time of going to press on 20/02/19.



17 Montague Road, Widnes, WA8 8FZ
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Est. 1946

OO Gauge (1:76 Scale) Steam locos



R3612 80th Anniversary of World Steam Record pack gold-plated Class A4 4468 "Mallard" and commemorative box set (Hor)£184



H4-AB14-004 Andrew Barclay 0-4-0ST 14" 1863 in Caledonian Railway lined blue (Hat)£99



H4-AB14-002 Andrew Barclay 0-4-0ST 14" 2047 '705' in GWR green shirtbutton roundel (Hat)£99



H4-AB16-003 Andrew Barclay 0-4-0ST 16" 2226 "Katie" in lined maroon (Hat) (RRP £99)BARGAIN.....£89



R2672 Class OF Pug 0-4-0ST 272 in Caledonian Railway blue - Railroad range (Hor) (RRP £28.49)BARGAIN...£17



R3292 Class OF Pug 0-4-0ST 56011 in BR black - Hornby 2014 Collectors Club special edition (Hor) (RRP £24.99)BARGAIN£16



R3213 Class 101 Holden 0-4-0T 3102 in SR Olive Green - Hornby 2013 Collectors club limited edition (Hor) (RRP £24.99)BARGAIN.....£16



K2205 Class 1361 0-6-0ST 1365 in BR black late crest - heavily weathered (DJ)£124.99



H1415 Class 14xx 0-4-2T 1432 in BR Lined green late crest - Heavily weathered (DJ) (RRP £99)BARGAIN...£74



H1409 Class 14xx 0-4-2T 1470 in BR Lined black early emblem (DJ) (RRP £99)BARGAIN.....£74



31-434 Class 1F 'Half Cab' 0-6-0T 41803 in BRITISH RAILWAYS black (Bac) (RRP £99.95)BARGAIN.....£66



32-301A Class 2251 0-6-0 Collett Goods 3212 in BR black early emblem and Collett tender (Bac) (RRP £114.95)BARGAIN £78



OR76DG002 Class 2301 Dean Goods 0-6-0 2409 in BR Black early emblem (Oxf) (RRP £112.95)BARGAIN.....£74



OR76DG003 Class 2301 Dean Goods 0-6-0 2475 in Great Western green (Oxf) (RRP £112.95) ...BARGAIN.....£74



R3667 Class 2721 0-6-0PT 2779 in GWR green - Railroad Range (Hor)£40.50



32-830A Class 2MT 2-6-0 Ivatt 6418 in LMS black (Bac) (RRP £144.95)BARGAIN.....£101



32-227DS Class 3F Jinty 0-6-0T 7365 in LMS black - DCC sound fitted (Bac) (RRP £214.95)BARGAIN.....£168



R3619 Class 4073 'Castle' 4-6-0 5013 "Abergavenny Castle" in BR green late crest (Hor)£144



R3333 Class 415 Adams Radial 4-4-2T 30584 in BR black early emblem (Hor) (RRP £119.99) ...BARGAIN.....£64



4785 Class 47xx 2-8-0 'Night Owl' 4709 in BR lined green late crest - as preserved (Hel)£154



H1403 Class 48xx 0-4-2T 4871 in GWR Unlined green Shirtbutton logo - Lightly weathered (DJ) (RRP £99)BARGAIN.....£89



R3170 Class 49xx 4-6-0 4901 "Adderley Hall" in GWR Green - Railroad range (Hor) (RRP £94.99)BARGAIN...£49



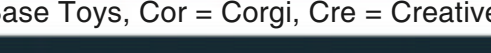
32-078 Class 56xx 0-6-2T 5637 in GWR green (Bac) £97.71



31-214 Class 6P Patriot 4-6-0 45538 "Giggleswick" in BR Green early emblem (Bac) (RRP £164.95)BARGAIN...£107



R3643 Class 7MT 'Britannia' 4-6-2 70046 "Anzac" in BR green late crest (Hor) NEW£162



R3618 Class 7P6F Rebuilt Battle of Britain 4-6-2 34050 "Royal Observer Corps" in BR green late crest (Hor) £144



R3638 Class 7P6F Streamlined West Country 4-6-2 34019 "Bideford" in BR green late crest (Hor) NEW£166.50



R3682 Class 8P 'Princess Coronation' 4-6-2 46225 "Duchess of Gloucester" in BR express passenger blue (Hor) ...£184.50



R3681 Class 8P 'Princess Coronation' 4-6-2 6241 "City of Edinburgh" in LMS post-war lined black (Hor) ...£184.50



R3623 Class 8P 'Streamlined Coronation' 4-6-2 6221 "Queen Elizabeth" in LMS coronation blue (Hor)£171



R3677 Class 8P 'Streamlined Coronation' 4-6-2 6229 "Duchess of Hamilton" in LMS crimson lake - as preserved (Hor) NEW.....£171



R3639 Class 8P 'Streamlined Coronation' 4-6-2 6244 "King George VI" in LMS crimson lake (Hor) NEW...£171



R3555 Class 8P Princess Coronation 4-6-2 46256 "Sir William Stanier F.R.S" in BR maroon (Hor)£189



31-531 Class A2 4-6-2 60536 "Trimbrush" in BR lined green early emblem (Bac) (RRP £179.95)BARGAIN...£111



R3518 Class A3 4-6-2 108 "Gay Crusader" in LNER apple green - "The Final Day" special edition (Hor) (RRP £189.99)BARGAIN.....£120



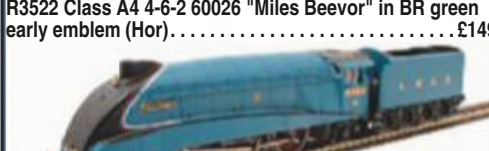
R3627 Class A3 4-6-2 60103 "Flying Scotsman" in BR express passenger blue (Hor) NEW£162



R3508TTS Class A3 4-6-2 60103 "Flying Scotsman" in BR green late crest - as preserved - TTS Sound fitted (Hor) £187



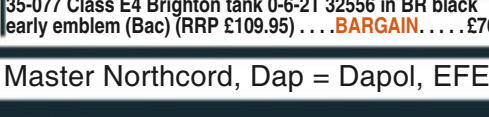
R3522 Class A4 4-6-2 60026 "Miles Beevor" in BR green early emblem (Hor)£149



R3676 Class A4 4468 "Mallard" in LNER garter blue - as preserved (Hor)£152



35-077 Class E4 Brighton tank 0-6-2T 32556 in BR black early emblem (Bac) (RRP £109.95) ...BARGAIN.....£76



R3615 Class W4 Peckett 0-4-0ST 560 in Peckett works leaf green builders lettering (Hor)£90



31-921 Class H2 Atlantic 4-4-2 32424 "Beachy Head" in BR black early emblem (Bac)£161.46



R3622 Class J36 0-6-0 65311 "Haig" in BR black early emblem (Hor)£126



R3668 Class J83 0-6-0T 8482 in LNER green - Railroad Range (Hor) NEW.....£40.50



R3634 Class LN 'Lord Nelson' 4-6-0 851 "Sir Francis Drake" in Southern Railway olive green (Hor)£153



32-166 Class N 2-6-0 1406 in Southern Railway black (Bac) (RRP £159.95)BARGAIN.....£108



R3527 Class N15 "King Arthur" 4-6-0 742 "Camelot" in Southern Railway wartime black (Hor) (RRP £175.99) BARGAIN....£128



OR76N7001 Class N7 0-6-2T 1002 in Great Eastern Railway wartime grey (Oxf)£87



3911 Class O2/3 Tango 2-8-0 63954 in early British Railways black stepped tender (Hel) (RRP £184.95)BARGAIN.....£84



3920 Class O2/4 Tango 2-8-0 3962 in LNER black flush tender (Hel) (RRP £184.95)BARGAIN.....£89



3922 Class O2/4 Tango 2-8-0 63975 in BR black late crest flush tender (Hel) (RRP £184.95)BARGAIN.....£84



R3559 Class Q1 0-6-0 C24 in Southern Railway wartime black (Hor)£104



R3615 Class W4 Peckett 0-4-0ST 560 in Peckett works leaf green builders lettering (Hor)£90



R3420 Drummond Class 700 0-6-0 30346 in BR black late crest (Hor) (RRP £124.99)BARGAIN.....£59



R3421 Drummond Class 700 0-6-0 30698 in BR Black early emblem (Hor) (RRP £124.99) ...BARGAIN....£59



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£2 per single diecast item
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R3419 Drummond Class 700 0-6-0 693 in Southern Railway black (Hor) (RRP £124.99) **BARGAIN**... £69



R3360 Freelance 0-4-0T 87 "Mosley Tarmacadam" in black - Railroad Range (Hor) (RRP £34.99) **BARGAIN**... £16



35-051 LNWR 0-6-2T Webb Coal tank 7841 in LMS black (Bac) £101.96



H4-P-001 SECR P Class 0-6-0T 178 in SE&CR full lined green (with brass) (Hat) £99



H4-P-015 SECR P Class 0-6-0T 27 in SE&CR full lined green (with polished brass) (Hat) £99



H4-P-007 SECR P Class 0-6-0T 31027 in BR black early emblem (Hat) £99



H4-P-008 SECR P Class 0-6-0T 31323 in BR black late crest (Hat) £99



31-981 Standard Class 3MT tank 82021 in BR lined black early emblem (Bac) £98

Diesel locos



2903 Class 07 shunter 07010 in BR blue wasp stripes (Hel) (RRP £139) **BARGAIN**... £101



32-119 Class 08 Shunter 08907 in DB Schenker red (Bac) (RRP £124.95) **BARGAIN**... £71



R3661 Class 31 D5509 in BR green (Hor) **NEW** £153



3417 Class 33/0 D6504 in BR green (Hel) £118.96



3530 Class 35 'Hymek' 35017 "Williton" in Civil Engineers 'Dutch' - as preserved (Hel) **NEW** £110.46



3529 Class 35 'Hymek' 7001 in BR blue - weathered (Hel) **NEW** £118.96



3528 Class 35 'Hymek' D7004 in BR blue small yellow panels (Hel) **NEW** £110.46



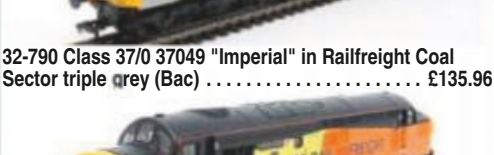
3526 Class 35 'Hymek' D7015 in BR green no yellow ends (Hel) **NEW** £110.46



3527 Class 35 'Hymek' D7088 in BR green small yellow panels (Hel) **NEW** £110.46



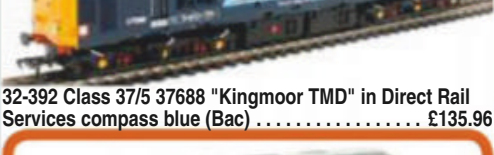
32-790 Class 37/0 37049 "Imperial" in Railfreight Coal Sector triple grey (Bac) £135.96



32-789 Class 37/0 37099 "Merl Evans 1947-2016" in Colas Rail Freight (Bac) £135.96



32-392 Class 37/5 37688 "Kingmoor TMD" in Direct Rail Services compass blue (Bac) £135.96



R3491 Class 42 Warship D805 "Benbow" in BR green - Railroad Range (Hor) (RRP £64.99) **BARGAIN**... £34.50



31-663 Class 47/0 47209 "Herbert Austin" in Railfreight Distribution Sector (Bac) (RRP £159.95) **BARGAIN**... £123



R3666 Class 59/0 59004 "Paul A. Hammond" in Yeoman Aggregates - Railroad Range (Hor) (RRP £84.99) **BARGAIN**... £64



32-738 Class 66 66711 "Sence" in GBRF/Aggregate Industries (Bac) (RRP £144.95) **BARGAIN**... £113



R3659 Class 67 67027 "Charlotte" in Colas Rail Freight (Hor) £144



4D-022-013 Class 68 68004 "Rapid" in Direct Rail Services blue (Dap) **NEW** £131.71



4D-022-015 Class 68 68026 in Direct Rail Services plain blue (Dap) **NEW** £131.71



4D-022-016 Class 68 68034 in Direct Rail Services blue (Dap) **NEW** £131.71



31-590 Class 70 70015 in Freightliner air intake modifications (Bac) (RRP £169.95) **BARGAIN**... £133



32-993 Type 27 Wickham Trolley and trailer MPP0007 in BR engineers yellow wasp stripes (Bac) (RRP £79.95) **BARGAIN** £55



R3685 Pair of Class 43 HST Power Cars 43041 "Meningitis Trust Support for Life" and 43005 in GWR green (Hor) (RRP £289.99) **BARGAIN**... £229



7704 Class 77 EM2 Woodhead electric 27001 "Ariadne" in BR green - Ltd Ed for Olivias Trains (Hel) (RRP £165) **BARGAIN**... £99



7702 Class 77 EM2 Woodhead electric 27004 "Juno" in BR electric blue - Ltd Ed for Olivias Trains (Hel) (RRP £165) **BARGAIN**... £99



R3582 Class 87 87010 "King Arthur" in Intercity Swallow (Hor) £144



R3580 Class 87 87035 'Robert Burns' in BR Blue (Hor) £144



R3480 Class 92 92016 "Brahms" in Railfreight grey EWS 'Beastie' vinyls (Hor) (RRP £99.99) **BARGAIN**... £52



4D-009-001 Class 121 single car DMU 'Bubblecar' W55020 in BR green speed whiskers (Dap) (RRP £145) **BARGAIN**... £109



4D-009-002 Class 121 single car DMU 'Bubblecar' W55028 in BR green small yellow panels (Dap) (RRP £145) **BARGAIN**... £109



4D-009-003 Class 121 single car DMU 'Bubblecar' W55029 in BR blue & grey (Dap) (RRP £145) **BARGAIN**... £109



4D-009-003 Class 121 single car DMU 'Bubblecar' W55029 in BR blue & grey (Dap) (RRP £145) **BARGAIN**... £109



8920 Class 128 parcels DMU 55991 in BR blue yellow ends "Parcels Service" branding (Hel) (RRP £119.95) **BARGAIN** £50



8940 Class 128 parcels DMU M55993 in BR Blue full yellow ends and flush fronts (Hel) (RRP £119.95) **BARGAIN**... £59



R3606 5-BEL Pullman Brighton Belle EMU end vehicles in Pullman umber and cream small yellow panels (Hor) £160



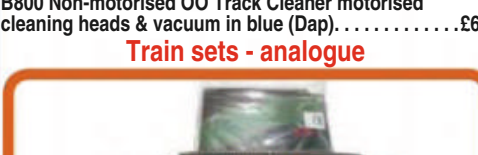
31-041 Class 450 Desiro 450127 4 car unit in South West Trains - weathered (Bac) (RRP £379.95) **BARGAIN** £322.96



R4871 Pack of three centre coaches for 5-BEL Brighton Belle in Pullman umber and cream (Hor) (RRP £179.99) **BARGAIN**... £132



R4871 Pack of three centre coaches for 5-BEL Brighton Belle in Pullman umber and cream (Hor) (RRP £179.99) **BARGAIN**... £132



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R4871 Pack of three centre coaches for 5-BEL Brighton Belle in Pullman umber and cream (Hor) (RRP £179.99) **BARGAIN**... £132

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R4689A 57' non-corridor composite M16587M in BR maroon (Hor) **NEW** £45



R4690A 57' non-corridor third M11886M in BR maroon (Hor) **NEW** £45



39-621 60' ex-SECR Birdcage brake third 3446 in SR olive green (Bac) (RRP £64.95) **BARGAIN** £45



R4525 Collett restaurant car 9578 in GWR chocolate & cream - Railroad Range (Hor) (RRP £21.99) **BARGAIN** £10



R4837 Maunsell bogie 'B' passenger brake van S261S in BR green (Hor) £43.50



R4816A Maunsell restaurant kitchen and dining car 7865 in SR olive green (Hor) **NEW** £43.50



R4817A Maunsell restaurant kitchen and dining car S7858S in BR green (Hor) **NEW** £43.50



R4623 Mk2E FO first open W3244 in BR blue and grey - Railroad range (Hor) (RRP £25.99) **BARGAIN** £12



OR763CO001 Mk3a CO composite open SC11907 in ScotRail (Oxf) £29



R4859 Mk3a DVT 82141 in Virgin Trains red and black (Hor) £64

R4660 Pullman Third Class Kitchen Car - K-Type Pullman Car (Hor) (RRP £49.99) **BARGAIN** £30

39-525A SR PLV luggage van 1061 in Southern Railway olive green (Bac) (RRP £39.95) **BARGAIN** £25

Wagons



4F-016-108 12 ton banana van 35639 in GWR grey (Dap) **NEW** £9.50

4F-016-109 12 ton banana van 35639 GWR grey - weathered (Dap) **NEW** £10.50

4F-071-154 7 plank open wagon "Gresford, Wrexham" (Dap) **NEW** £9.50

4F-071-155 7 plank open wagon "Gresford, Wrexham" - weathered (Dap) **NEW** £10.50



4F-080-124 8 plank open wagon "Banks, West Bromwich" (Dap) **NEW** £10



4F-080-126 8 plank open wagon "Llay Main, Wrexham" (Dap) **NEW** £10

4F-080-127 8 plank open wagon "Llay Main, Wrexham" - weathered (Dap) **NEW** £11



R6836 8 ton box vans in LMS bauxite - pack of three - railroad range (Hor) **NEW** £21

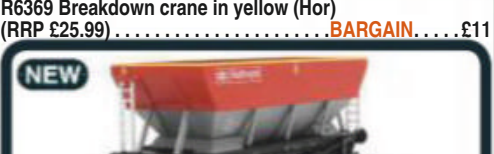
H4-BH-004 Bellhack snow plough (ex Class 40) ZZA ADB965579 in BR yellow "Stratford Shark" (Hat) £43



OR76BOOM02 BL 13.5 inch howitzer railgun "Gladiator" (Oxf) **NEW** £46



R6369 Breakdown crane in yellow (Hor) (RRP £25.99) **BARGAIN** £11



R6853 HEA hopper wagon 361188 in Railfreight red (Hor) **NEW** £22.50

4F-026-013 HIA aggregate limestone hopper 369006 in Freightliner green (Dap) £22.52

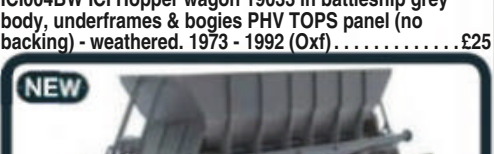


4F-026-014 HIA aggregate limestone hopper 369012 in Freightliner green (Dap) £22.52

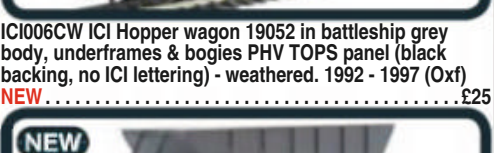
IC1005EW ICI Hopper wagon 19011 in battleship grey body, underframes & bogies PHV TOPS panel (black backing) - weathered. 1973 - 1992 (Oxf) £25



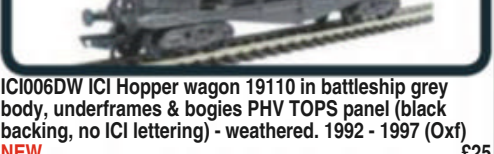
IC1004BW ICI Hopper wagon 19033 in battleship grey body, underframes & bogies PHV TOPS panel (no backing) - weathered. 1973 - 1992 (Oxf) £25



IC1006CW ICI Hopper wagon 19052 in battleship grey body, underframes & bogies PHV TOPS panel (black backing, no ICI lettering) - weathered. 1992 - 1997 (Oxf) **NEW** £25



IC1006DW ICI Hopper wagon 19110 in battleship grey body, underframes & bogies PHV TOPS panel (black backing, no ICI lettering) - weathered. 1992 - 1997 (Oxf) **NEW** £25



IC1005CW ICI Hopper wagon 19116 in battleship grey body, underframes & bogies PHV TOPS panel (black backing) - weathered. 1973 - 1992 (Oxf) £25



R6848 OTA timber wagon 200763 in EWS maroon tapered stanchions (Hor) **NEW** £25.50

R8012 HM2000 High output power & speed controller, mains supply. (Hor) £94

PC2 One Touch DCC Quad Point Controller x 4 (Tra) £32

Digital controllers



R8214 DCC Elite unit digital controller (Hor) £215

Point motors

R8014 Mark 2 Point Motor (Hor) (RRP £9.99) **BARGAIN** £5



R8243 Surface Mounted point motor (Hor) £8.50

Switches and levers

R044 Passing contact lever frame switch (for point motors) (Hor) (RRP £11.99) **BARGAIN** £6

Accessories

SFX10 Steam loco sound capsule (with built battery, speaker & motion detector) (Tra) £38

Cables & Wires

PL-80 Power feed joiners - Code 100/124 (x4 pairs) (Pec) £6

Model railway spares

SL-110 Finescale rail joiners/fishplates (for code 70, 75 & 83) for OO & HO gauge - Pack of 24 (Pec) £2

SL-11 Insulated rail joiners/fishplates (for OO, HO & O gauge code 100 rails incl. Hornby, Peco & Peco Streamline) - Pack of 12 (Pec) £2

SL-10 Metal rail joiners/fishplates (for code 100 rails incl. Hornby, Peco & Peco Streamline) - For OO, HO & O gauge - Pack of 24 (Pec) £2.20

19KADEE NEM362 Kadec coupling - Long (10.76mm) - Pack of four (Kad) £5

16KADEE NEM362 Kadec coupling - Medium (8.63mm) - Pack of four (Kad) £5

Man-made scenic structure - railway-related

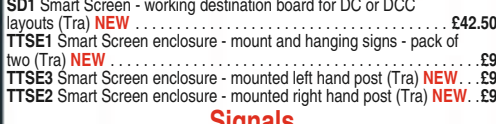
89121 27.4 metre (90ft) Motorised turntable - ready for installation. For HO/OO scales. DCC ready (Hel) £210



R083 Buffer Stop (Hor) £1.80



R083 Box of 6 (Hor) £9.50



R636 Double track level crossing (Hor) (RRP £28.99) **BARGAIN** £14

SD1 Smart Screen - working destination board for DC or DCC layouts (Tra) **NEW** £42.50

TTSE1 Smart Screen enclosure - mount and hanging signs - pack of two (Tra) **NEW** £9

TTSE3 Smart Screen enclosure - mounted left hand post (Tra) **NEW** £9

TTSE2 Smart Screen enclosure - mounted right hand post (Tra) **NEW** £9

Signals

4L-001-001 Signal - Motorised, Square post GWR home lower quadrant (OOSIGN1) (Dap) £25

Trees

R7217 Acacia Tree (Hor) **NEW** £7

R7213 Apple Tree (with Fruit) (Hor) **NEW** £7

R7219 Beech Tree (Hor) **NEW** £9

R7204 Beech Trees (Hor) **NEW** £10

R7215 Birch Tree (Hor) **NEW** £7

R7205 Birch Trees (Hor) **NEW** £10

R7208 Bushes (Hor) **NEW** £10

R7212 Fruit Tree (Hor) **NEW** £7

R7202 Fruit Trees (Hor) **NEW** £10

R7198 Hobby' Deciduous Trees (Hor) **NEW** £17.50

R7199 Hobby' Fir Trees (Hor) **NEW** £17.50

R7201 Hobby' Mixed (Deciduous and Fir) Trees (Hor) **NEW** £17.50

R7211 Horse Chestnut Tree (Hor) **NEW** £8.50

R7222 Horse-Chestnut Tree (Hor) **NEW** £9

R7206 Large Fir Trees (Hor) **NEW** £10

R7226 Large Nordic Fir Tree (Hor) **NEW** £7

R7210 Lime Tree (Hor) **NEW** £8.50

R7221 Lime Tree (Hor) **NEW** £9

R7223 Lime Tree (Hor) **NEW** £13.50

R7225 Medium Nordic Fir Tree (Hor) **NEW** £7

R7227 Medium Pine Tree (Hor) **NEW** £7

R7209 Oak Tree (Hor) **NEW** £8.50

R7220 Oak Tree (Hor) **NEW** £9

R7214 Pear Tree (Hor) **NEW** £7

R7216 Rowan Tree (with Berries) (Hor) **NEW** £7

R7207 Small Fir Trees (Hor) **NEW** £10

R7218 Tree (with Circular Bench) (Hor) **NEW** £8

R7224 Tree (with Tree House) (Hor) **NEW** £20

People - civil

36-047 Locomotive staff x 6 (Bac) £8.50

Track - Code 100 Setrack

R605 1st radius double curve (8 make a circle) (Hor) £2.50

R605 Circle of 8 (Hor) £18

R607 2nd radius double curve track (8 make a circle) (Hor) £2.50

R607 Circle of 8 (Hor) £18

R609 3rd radius double curve track (8 make a circle) (Hor) £2.60

R609 Circle of 8 (Hor) £20

ST-2035 4th radius Standard Curve Track (ST-235 x 8) (Pec) £12

R601 Double Straight (Hor) £8

R601 Box of 24 (Hor) £47

R070 Electrically Operated Turntable (Hor) £64



R8072 Left Hand Standard Point (Hor) £9.50



36-872 Left-hand non-isolating standard point (Bac) (RRP £9.95) **BARGAIN** £6

R603 Long Straight - 670mm (Hor) £3.70

R8073 Right Hand Standard Point (Hor) £9.50

36-873 Right Hand non-isolating Standard Point (Bac) (RRP £9.95) **BARGAIN** £6

ST-245 Setrack curved double radius left handed point insulfrog (Pec) £14.50

ST-244 Setrack curved double radius right handed point insulfrog (Pec) £14.50

ST-241 Setrack No.2 radius left handed point insulfrog (Pec) £9

ST-240 Setrack No.2 radius right handed point insulfrog (Pec) £9

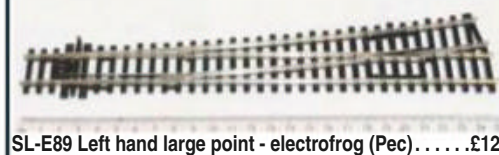
R621 Single 970mm length of flexible track (Hor) £3

R621 Pack of 24 (Hor) £66

R600 Standard Straight (Hor) £1.50

R600 Box of 24 (Hor) £34

Track - Code 100 Streamline

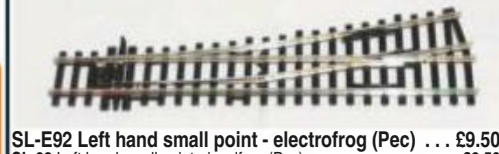


SL-100 Pack of 25 1 yard (91.5cm) length of Code 100 Wooden-sleeper nickel silver flexible track (Pec) £66

SL-100 Single (Pec) £3

SL-102 1 yard (91.5cm) length of Nickel Silver concrete-sleeper flexible track (Pec) £3

SL-102 Pack of 25 (Pec) £70



SL-E99 3 way medium radius point - electrofrog (Pec) £27

SL-99 3 way medium radius point - insulfrog (Pec) £27

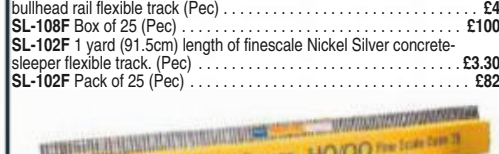
SL-90 Double slip - insulfrog (Pec) £33

SL-E87 Left hand curved point - electrofrog (Pec) £12.50



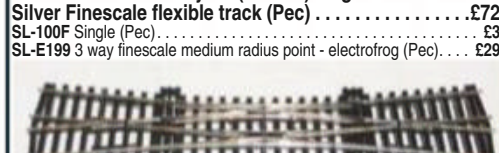
SL-E89 Left hand large point - electrofrog (Pec) £12

SL-89 Left hand large point - insulfrog (Pec) £12



SL-E96 Left hand medium point - electrofrog (Pec) £10.50

SL-96 Left hand medium point - insulfrog (Pec) £10.50



SL-E92 Left hand small point - electrofrog (Pec) ... £9.50

SL-92 Left hand small point - insulfrog (Pec) £9.50

SL-E88 Right hand large point - electrofrog (Pec) £12

SL-88 Right hand large point - insulfrog (Pec) £12



SL-E95 Right hand medium point - electrofrog (Pec) . £10.50

SL-95 Right hand medium point - insulfrog (Pec) £10.50

Prices valid until 10/04/19

All prices correct
when going to press.
Errors excepted.



SL-E189 Finescale left hand large point electrofrog (Pec) £12.50



SL-E196 Finescale left hand medium point - electrofrog (Pec) £11.50
SL-E192 Finescale left hand small point - electrofrog (Pec) £10.50
SL-E186 Finescale right hand curved point - electrofrog (Pec) £13



SL-E195 Finescale right hand medium point - electrofrog (Pec) £11.50



SL-E191 Finescale right hand small point - electrofrog (Pec) £10.50
SL-U1189 Left hand large radius bullhead rail point - unifrog (Pec) £26
SL-U1188 Right hand large radius bullhead rail point - unifrog (Pec) £26

Track underlay

SL-50 Roll of foam track underlay sleeper indentation. Suitable for Setrack and Streamline 5m long (16' 4") (Pec) £10

Railway publications

R8157 Hornby 2019 Catalogue - 65th Edition (Hor) £8.50

Buses



UK6507A ADL Enviro400 MMC - "Bluestar" (Nor) NEW £51
UK6507B ADL Enviro400 MMC - "Bluestar" (Nor) NEW £51



UK0062 ADL Enviro400 MMC - "Reading Buses Greenline" (Nor) £51
UK0061 ADL Enviro400 MMC - "Reading Buses" (Nor) £48



76BI004 Beadle Integral Southdown (Oxf) £16
OM46713B Wright Eclipse II - Transdev - "The Shuttle" 662 Bradford via Bingley (Cor) NEW £33



Cars



76RAN005 Range Rover Vogue Aintree Green Metallic (Oxf) NEW £5

Public Service vehicles



76LR2AS004 Land Rover Series IIA SWB Hard Top "Hong Kong Police" (Oxf) NEW £5

Commercial vehicles



76FTC010 Ford Transit Connect - Tube Lines (London Underground) (Oxf) NEW £5



OR76ROR002B Land Rover Defender 110 posable rail wheels - "Network Rail" - non-motorised (Oxf) NEW £6.50



76MB008 Mercedes Actros SSC Tipper Ronnie S Evans (Oxf) £21.50

Military ground vehicles

A02314V Bofors anti-aircraft gun and tractor - Airfix Classics range - plastic kit (Air) NEW £8

N Gauge

Steam locos



2S-009-007 Class 2884 2-8-0 3822 in BR black late crest (Dap) £124



2S-008-008 Class A4 4-6-2 4468 "Mallard" in LNER garter blue valances (Dap) £128.83

Diesel locos

HSTs

2D-022-007S Class 68 68001 "Evolution" DRS - DCC sound fitted (Dap) £242.72



2D-019-006 Class 43 HST 4-car book set in East Coast silver (Dap) £160.89



2D-019-009 Class 43 HST 4-car book set in GWR Green (Dap) £160.89

DMUs



2D-009-004 Class 121 "Bubble Car" DMU 121032 in Arriva Trains Wales (Dap) £114.04



ND116E Class 142 "Pacer" 2 car DMU 142021 in Tyne and Wear PTE (Dap) NEW £115.18



ND116C Class 142 "Pacer" 2 car DMU 142025 in Northern Spirit (Dap) NEW £115.18



ND116A Class 142 "Pacer" 2 car DMU 142065 in Northern Rail (Dap) NEW £115.18



ND116B Class 142 "Pacer" 2 car DMU 142081 in Regional Railways (Dap) NEW £115.18



ND116D Class 142 "Pacer" 2 car DMU 142085 in Arriva Trains Wales (Dap) NEW £115.18

Wagons

NR-43B 12 ton ventilated box van in BR Brown (Pec) NEW £7.50
NR-28B 20 ton brake van in BR Bauxite (Pec) NEW £8.50
NR-49E 20 ton brake van in BR Bauxite (Pec) NEW £8
NR-28E 20 ton brake van in LNER Bauxite (Pec) NEW £8.50
2F-036-043 4-wheel bulk grain hopper B885330 in BR grey (Dap) NEW £13.50



2F-036-044 4-wheel bulk grain hopper B885330 in BR grey - weathered (Dap) NEW £14.50
2F-071-055 7-plank open wagon "Blue Circle Cement" - weathered (Dap) NEW £9.50
NR-48M LMS 20 ton brake van in LMS grey (Pec) NEW £8

Model railway spares

SL-311 Insulated Rail Joiners/Fishplates for N & 009 gauge (12 per pack) (Pec) £1.70
SL-310 Rail Joiners/Fishplates for N & 009 gauge (24 per pack) (Pec) £2

Bridges, Tunnels & Walls

Track - Code 80 Setrack

NBR4B Pack of five viaduct piers - laser cut wood kit (Anc) NEW £18
ST-6 Setrack left hand point insulfrog (Pec) £8.50
ST-5 Setrack right hand point insulfrog (Pec) £8.50

Track - Code 80 Streamline



SL-300 Pack of 25 1 yard (91.5cm) length of Wooden-Sleeper Nickel Silver Flexible track (Pec) £64
SL-300 Single (Pec) £3



SL-E396 Left hand medium point electrofrog (Pec) £9.50



SL-E395 Right hand medium point electrofrog (Pec) £9.50
SL-395 Right hand medium point insulfrog (Pec) £9.50

Track - Code 55 Finescale



SL-300F Pack of 30 1 yard (91.5cm) length of Finescale Nickel Silver flexible Wooden Sleeper track (Pec) £84
SL-300F Single (Pec) £3
SL-302F 1 Yard of Nickel Silver Flexible Track Concrete Sleepers (Pec) £3.50
SL-302F Pack of 30 (Pec) £91



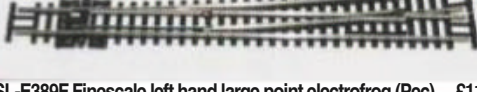
SL-E387F Finescale curved double radius left hand point electrofrog (Pec) £11



SL-E386F Finescale curved double radius right hand point electrofrog (Pec) £11



SL-E390F Finescale double slip electrofrog (Pec) £38



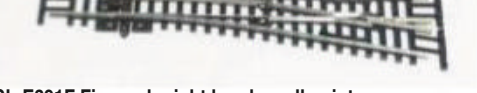
SL-E389F Finescale left hand large point electrofrog (Pec) £11
SL-U396F Finescale left hand medium point unifrog (Pec) £10.50



SL-E392F Finescale left hand small point electrofrog (Pec) £9.50



SL-E388F Finescale right hand large point electrofrog (Pec) £11
SL-U395F Finescale right hand medium point unifrog (Pec) £10.50



SL-E391F Finescale right hand small point electrofrog (Pec) £9.50



SL-E383F Finescale scissors crossover electrofrog (Pec) £63

Commercial vehicles



NTCAB007CC Scania T Cab Box Trailer Coca Cola Xmas (Oxf) NEW £12

009 Narrow Gauge

Steam locos



9950 Lynton & Barnstaple 2-6-2T "Yeo" in L&B dark green (Hel) £189.95



9951 Lynton & Barnstaple 2-6-2T 760 "Exe" in Southern Railway green (Hel) £189.95



9952 Lynton & Barnstaple 2-6-2T 761 "Taw" in Southern Railway green (Hel) £189.95



9953 Lynton & Barnstaple 2-6-2T E760 "Exe" in intermediate Southern Railway (1927-29) (Hel) NEW £209.95

Track - Code 80 Setrack

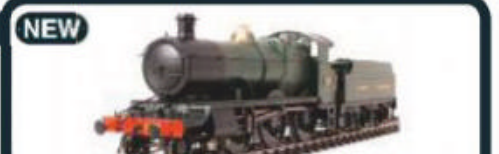
ST-400 Setrack narrow gauge starter track pack - first radius (Pec) £68

Track - Code 80 Streamline

SL-E491 Right hand point electrofrog (Pec) £9.50

O Gauge (1:43 Scale)

Steam locos



4320 Class 43xx "Mogul" 2-6-0 4375 in GWR green (Hel) NEW £662.15



4321 Class 43xx "Mogul" 2-6-0 5322 in BR black - as preserved (Hel) NEW £662.15



4300 Class 43xx Mogul 2-6-0 4339 in GWR green Great Western lettering (Hel) NEW £662.15



4311 Class 43xx Mogul 2-6-0 4358 in BR lined green early emblem (Hel) NEW £662.15



4313 Class 43xx Mogul 2-6-0 5306 in BR unlined green late crest (Hel) NEW £662.15



4302 Class 43xx Mogul 2-6-0 5320 in GWR green GWR lettering (Hel) NEW £662.15

Visit

www.hattons.co.uk/preorder

for all forthcoming releases



4312 Class 43xx Mogul 2-6-0 5330 in BR lined green late crest (Hel) **NEW**.....£662.15



4301 Class 43xx Mogul 2-6-0 5355 in GWR green shirtbutton emblem (Hel) **NEW**.....£662.15



4310 Class 43xx Mogul 2-6-0 5378 in BR black early emblem (Hel) **NEW**.....£662.15
7S-007-004S Class 57xx 0-6-0PT pannier L94 in London Transport maroon - DCC sound fitted (Dap) (RRP £428.20) **BARGAIN**.....£314



7S-024-003 Class 64xx 0-6-0PT pannier 6435 in BR black early emblem (Dap) (RRP £400) **BARGAIN**.....£295



7S-010-012 Class A1X 'Terrier' 0-6-0T 32650 in BR lined black early emblem (Dap).....£191.25

Diesel locos



7D-008-010 Class 08 shunter D3316 in BR blue (without ladder) (Dap) (RRP £225) **BARGAIN**.....£169



2006 Class 20 in BR blue full yellow ends, 1980s style warning flashes and headcode discs - Exclusive to Hatton's (Hel) (RRP £599) **BARGAIN**.....£450



2558 Class 25/3 in BR blue - unnumbered (Hel) ..£446.25



2555 Class 25/3 in BR green small yellow panels - unnumbered (Hel).....£446.25



4205 Class 42 Warship 829 'Maggie' in BR blue (Hel) (RRP £699) **BARGAIN**.....£495



4502 Class 45 'Peak' in BR green small yellow panels and green roof - unnumbered (Hel) (RRP £699) **BARGAIN**.....£520



5288 Class 52 D1023 'Western Fusiler' in BR blue (Hel) (RRP £599) **BARGAIN**.....£470

5287 Class 52 D1039 'Western King' BR maroon full yellow ends (Hel)£509.15



5286 Class 52 D1061 'Western Envoy' in BR maroon small yellow panels (Hel).....£509.15



5289 Class 52 D1067 'Western Druid' in BR blue - weathered (Hel).....£509.15

Coaches



7P-004-003 GWR 59' Auto Coach in GWR chocolate and cream shirtbutton (Dap).....£170



4953 Mk1 BG full brake in BR chocolate and cream (Hel) (RRP £325) **BARGAIN**.....£141



4954 Mk1 BG full brake in BR green (Hel) (RRP £325) **BARGAIN**.....£149



4956 Mk1 BG full brake in Royal Mail red (Hel) (RRP £325) **BARGAIN**.....£147



4923 Mk1 BSK brake second corridor in BR chocolate and cream - unnumbered (Hel).....£169.50



4921 Mk1 BSK brake second corridor in BR maroon - unnumbered (Hel).....£169.50



4990 Mk1 GUV full brake in Royal Mail Parcels red (Hel) (RRP £325) **BARGAIN**.....£147



4941 Mk1 RMB mini buffet in BR maroon - unnumbered (Hel).....£169.50



4913 Mk1 SO second open in BR chocolate and cream - unnumbered (Hel).....£169.50

4911 Mk1 SO second open in BR maroon - unnumbered (Hel).....£169.50

Wagons



1053 100xx OAA in Railfreight red and grey (Hel) (RRP £84.95) **BARGAIN**.....£35

7F-200-005 20-ton standard brake van B952042 in BR grey (Dap).....£67.96



7F-200-004 20-ton standard brake van CAP B951224 in BR bauxite (Dap).....£67.96



1041 200xx VBA sliding door van in BR bauxite - late (Hel) (RRP £84.95) **BARGAIN**.....£39



1050 OAA open wagon in BR bauxite (Hel) (RRP £84.95) **BARGAIN**.....£35



1052 OAA open wagon in Railfreight red and grey (Hel) (RRP £84.95) **BARGAIN**.....£39

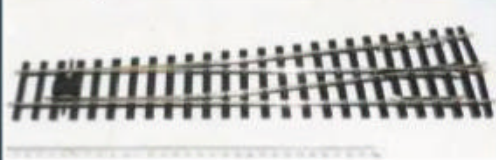
Track - Code 124 Bullhead Streamline



SL-700BH Box of 12 1 Yard O Gauge Flexible Nickel Silver Track (Bullhead Nickel Silver Rail) (Pec).....£75
SL-700BH Single (Pec).....£6.50



SL-E790BH Double slip (8 degree angle) Electrofrog (Pec).....£85



SL-E792BH Left hand point bullhead rail and electrofrog (Pec).....£43

SL-E791BH Right hand point bullhead rail and electrofrog (Pec).....£43

ST-725 Setrack Bullhead 2nd radius standard curve 410mm (16") (Pec)£6

ST-U751 Setrack second radius Unifrog left hand point (Pec).....£43

ST-U750 Setrack second radius Unifrog right hand point (Pec).....£43

Any or Multiple Scales

Analogue controllers



COMBI Combi 12v 1Amp Single Track Controller Transformer (Gau).....£34

D Double/Twin track power controller (Gau).....£80

Q Quadruple 4 circuit power controller (Gau).....£149

Digital decoders

Imperium1 'Imperium' 21 Pin MTC 6-function DCC decoder (Dap) £19.51



DCR-21Pin-Direct-V2 21-pin 6-function 1.1Amp direct plug decoder back EMF (Hat).....£16.50

X9659 4-pin DCC decoder for Sentinels and Peckett locos (Hor).....£12

36-568 6 pin DCC decoder Back EMF and Railcom (Bac).....£24.61

DCR-6PIN-Direct 6-pin 2-function 1.1Amp direct plug decoder back EMF (Hat).....£17

BPDC27 8 & 21-pin 4-function 1A (1.8A peak) small OMNI decoder (measures 231 x 27w x 10d mm) x 5 (Gau).....£79

DCR-8PIN-HarnessMini 8-pin (harness) 2-function 1.1Amp small & thin (mini) decoder back EMF (Hat).....£16

DCR-8PIN-HarnessMini Box of 5 (Hat).....£72

DCR-8PIN-HarnessMini Box of 10 (Hat).....£128

DCR-8PIN-Harness 8-pin (harness) 4-function 1.1Amp decoder back EMF (Hat).....£15

DCR-8PIN-Harness Box of 5 (Hat).....£68

DCR-8PIN-Harness Box of 10 (Hat).....£120

36-553 8-pin 3-function 0.75A decoder back EMF (Bac) (RRP £20.90) **BARGAIN**.....£12

R8249 8-pin 4-function 2-sided 0.5A (1A peak) decoder (Hor).....£16

R8249 Box of 6 (Hor).....£92

DCR-8PIN-Direct 8-pin compact direct 4-function 1.1Amp decoder back EMF (Hat).....£17

DCR-8PIN-Direct Box of 5 (Hat).....£77

DCR-8PIN-Direct Box of 10 (Hat).....£136



R8115 TTS DCC Sound Decoder 8 pin plug - 'Merchant Navy' 4-6-2 steam loco (Hor).....£38



R8117 TTS DCC Sound Decoder 8 pin plug - 'Princess Coronation' 4-6-2 steam loco (Hor).....£36

R8118 TTS DCC Sound Decoder 8 pin plug - Class 20 diesel (Hor).....£36

R8101 TTS DCC Sound Decoder 8 pin plug - Class 31 diesel (Hor).....£36

R8107 TTS DCC Sound Decoder 8 pin plug - Gresley Class A4 4-6-2 steam loco (Hor).....£36

R8108 TTS DCC Sound Decoder 8 pin plug - Peppercorn Class A1 4-6-2 steam loco (Hor).....£36

R8120 TTS DCC Sound Decoders - Pack of 2 8 pin plugs - Class 43 HST (MTU) (Hor).....£59.50

Digital controllers



50210 ECoS Command Station DCC V2.1 controller full colour LCD touch screen & dual controllers - 6A output (ESU)£600



524-042 NCE Power Cab 2 Amp Digital DCC controller (NCE).....£154

DCC49 Prodigy 8 Amp booster unit (Gau).....£169

DCC05 Prodigy Advance WiFi Receiver - allows Smartphone or Tablet control of Prodigy DCC system (Gau).....£84

DCC06 Prodigy Express 1.6 Amp Digital controller WiFi capability - complete starter pack (Gau).....£199

Digital control accessories

BPDC80 Pack of three DCC autofrog polarity reversal switches - for electrofrog points (Gau).....£13.50

Point motors

DCP-CB12IP Cobalt ip slow-action analogue point motor - pack of 12 (DCC) £169

DCP-CB12DIP Cobalt ip slow-action digital point motor - pack of 12 (DCC) £220

DCP-CB6DIP Cobalt ip slow-action digital point motor - pack of 6 (DCC) ..£118

DCP-CB12OMG Cobalt Omega slow-action analogue point motor x 12 (DCC).....£165

DCP-CBSS-6 Cobalt SS surface mounted point motors controller - pack of 6 (DCC).....£127

PL-10 Point Motor (Switch Machine) (Pec).....£6

PL-10 Bag of 6 (Pec).....£34



PL-10E Bag of 6 Point Motor Extended Pin (use PL-9) (Pec).....£34

PL-10E Single (Pec).....£6

PM-1 Seep point motor accessory switch (Gau).....£5

PL-11 Side/surface mounted point motor (Pec).....£8



HAT-PM-01 Solenoid point motor including pin extension and 2-way arm for use points and signals. Exclusive to Hatton's (Hat).....£6.50

HAT-PM-01 Pack of 6 (Hat).....£35

Switches and levers

PL-13 Accessory Switch for fitting to turnout motor PL10 (Pec).....£3

Electronic components

ST10 Track Sensor plus (Tra) **NEW**.....£22

Grass, ground, lichen, hedges and foliage

R7163 Flock - Dark Green (Hor) **NEW**.....£4

R7162 Flock - Medium Green (Hor) **NEW**.....£4

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R7180 Static Grass - Mixed Summer, 2.5mm (Hor) **NEW**.....£3.20

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R7177 Static Grass - Spring Meadow, 2.5mm (Hor) **NEW**.....£3.20

Minerals, water and rocks

R7170 Ballast - Coal (Hor) **NEW**.....£3.20

R7169 Ballast - Gneiss (Hor) **NEW**.....£3.20

R7165 Ballast - Grey (Hor) **NEW**.....£3.20

R7161 Flock - Bright Green (Hor) **NEW**.....£4

Non-railway publications

CO200830 Corgi Catalogue - 2019 (Cor) **NEW**.....£3

OxCat1902-1905 Oxford Diecast 48-page A6 catalogue - February 2019 to May 2019. Includes OO, N & O gauge items (Oxf) **NEW**.....£0.20

Glues

R7183 Grass Glue (Hor) **NEW**.....£9.50

Tools

DCM-RRR12 Rolling Road - 12 Axle - For OO, N, HO, TT, OO9, EM and P4 gauges (DCC).....£85

DCM-RRR48 Rolling Road - 8 Axle - For OO, N, HO, TT, OO9, EM and P4 gauges (DCC).....£68



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To build the Fordhampton range of plastic kits, we recommend Faller FA170492 Expert Kit Glue. To view articles about building and finishing the kits in the Fordhampton range, go to www.gaugemaster.com/Fordhampton

Full details of our Structures range can be found in the Gaugemaster Full Catalogue **AVAILABLE SUMMER 2018**.

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GM353 Gaugemaster Full Catalogue £3.95



GM414 Fordhampton Bridge



GM416 Fordhampton Play Park



GM430 Mortimer GWR Station

Designed by Brunel himself in 1848, Mortimer Station still stands on the Reading to Basingstoke line. It was built in the 'Italianate' style, which was quite popular around the Great Western Railway. The spear fencing around the station is available separately in a pack of 30" of fence, as part number **GM429**



GM401 Brick or Stone Station



GM402 Signal Box



GM403 Double Track Footbridge



GM404 Single Track Level Crossing



GM405 Three Bedroom House



GM406 Locomotive Depot



GM407 Carriage Platforms



GM408 Village Stores/Public House



GM410 Surgery/Rest Home/Dentist



GM411 Farmhouse/Holiday Cottage



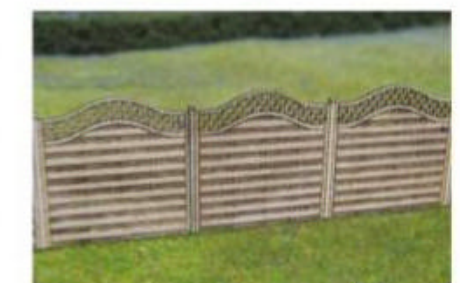
GM412 Gasometer



GM413 Nurseries/Garden Centre



GM451 Wooden Fencing (30cm)



GM452 Lattice Top Fencing (30cm)



GM453 Garden Shed

PRICES

Code	Description	RRP
GM401	Fordhampton Station Plastic Kit	£27.00
GM402	Fordhampton Signal Box Plastic Kit	£13.50
GM403	Fordhampton Footbridge Plastic Kit	£17.75
GM404	Fordhampton Level Crossing Plastic Kit	£14.75
GM405	Fordhampton 3 Bedroom House Plastic Kit	£16.75
GM406	Fordhampton Locomotive Depot Plastic Kit	£22.00
GM407	Fordhampton Carriage Platform Plastic Kit	£10.50
GM408	Fordhampton Village Stores/Public House Plastic Kit	£18.75
GM410	Fordhampton Surgery Plastic Kit	£16.75
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GM414	NEW Fordhampton Bridge	£13.50
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GM452	Wooden Fencing Lattice Top Laser Cut Kit	£6.25
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GAUGEMASTER *Spotlight*

SEEP Point Motors



SEEP GMC-PM10 *Classic* Solenoid Point Motor



- Reversible fitting direct to point, or under baseboard.
- Positive throw action with less bounce.
- Low voltage, energy efficient operation (16-24v AC or DC).
- Complete with mounting screws and extension pin.
- In-built terminal block, no soldering.
- OO, N and O Scale compatible.
- Precision-built with high tolerance levels.
- Value Packs of 5 available.
- **Digital version** available, that can be powered by either DC or DCC power sources.



The in-built terminal block means that installing the PM10 is a breeze, with no soldering required. The motor can be fitted either directly to the point, or under the baseboard.

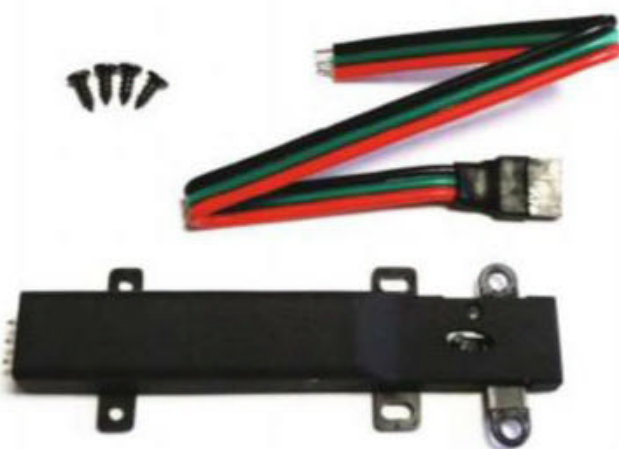
The **GMC-PM10 Classic** Solenoid Point Motor has been created to work with all leading brands of track in the United Kingdom. Designed with easy installation in mind, it has a built-in reversible mounting plate (with adjustment slots and holes), robust plated metalwork frame and fibreglass circuit boards for longer life.

The PM10s magnetic coils are high-efficiency for reliable operation, needing less current than other brands. The PM10 also has easy to use solder-free screw terminals. We have included mounting screws and a throw-bar extension for each motor for easy, simple installation. We even supply a handy screwdriver with the Value Pack, for use with the solderless terminals.

The **Digital version (GMC-PM10D)** comes complete with an accessory decoder and harness, with the same features and flexibility as the **Classic** version. It has built-in connections for manual switch operation, as well as LEDs for your mimic panel for position indicators. All terminals are screw connections.



SEEP GMC-PM20 *Surface Mounted* Point Motor



- 'Plug and Play' installation with reversible 3-Way connector.
- Fits parallel to point work - tie-bar linkage drops over tie-bar pin.
- Strong metal body shell construction.
- Complete with mounting screws and pre-terminated harness.
- Low voltage, energy efficient operation (16-24v AC or DC).
- OO, N and O Scale compatible.
- Value Packs of 5 available.
- **Digital version** available, that can be powered by either DC or DCC power sources.

Designed with easy installation in mind, the **GMC-PM20 Surface Mounted** Point Motor is placed parallel to your point-work and operates equally well orientated either way. PM20 works well with all popular modelling scales, and with the leading brands of track in the UK.

The magnetic coils are high-efficiency for reliable operation, needing much less current than most other brands. The **GMC-PM20** also has a plug-in harness that is very easy to use. Mounting screws are included.

GMC-PM20 has built-in connections for manual switch operation, as well as LEDs for your mimic panel for position indicators. All terminals are screw connections.

Installation is simplified with three pin plug socket on the end of the point motor. Simply plug in the pre-terminated harness and connect the wires to your power source.



GMC-PM50 Connection Boxes (3)

Ever find you've cut your run of wire too short or run out before you get to the switch? These connectors will help. They even come with screws to fix them on.



GMC-PM51 Point Motor Wire (Red/Green/Black) 10m Tripled (14 x 0.15)

This is a useful 10m reel of tripled wire; with red, green, and black wires together. Easier, tidier wiring for point motors.



GM09RB Red/Black Twinned Wire 10m (14 x 0.15mm)

10m of Red/Black twinned wire. Ideal for model railway use and when trying to keep wiring tidy.



GM612 45mm Hole Saw & Arbor for Point Motor Fitting

Great for drilling holes in your baseboard if you are fitting your motors directly to the track.

GMC-PM52 Point Motor Accessory Pack Contains 5 spare extension pins and collars, 20 attachment screws, screwdriver, and 5 ballast stickers.

This is a useful pack for anyone using our GMC-M10/PM10D Point Motors. It contains extra extension pins and collars, screws, and a screwdriver which fits the terminal block on the PM-10, as well as ballast stickers to cover the hole in the baseboard.

PRICES

Full details of our Analogue Controller range can be found in the Gaugemaster Full Catalogue **AVAILABLE SUMMER 2018**. It also contains details of our Digital Controllers, Scenics, Point Control, Electrics and much more in the Gaugemaster range.

It also contains selected items from many of the other brands that we stock.

GM353 Gaugemaster Full Catalogue £3.95

SEEP Point Motors

GMC-PM1	Point Motor with Built-In Switch	£5.95
GMC-PM2	Point Motor No Switch	£5.50
GMC-PM4	Point Motor with Latching Mechanism	£6.75
GMC-PM10	Classic Solenoid Point Motor	£7.25
GMC-BPPM10	Classic Solenoid Point Motor (5 Pack)	£32.95
GMC-PM10D	Classic Solenoid Point Motor (DCC-Fitted)	£19.95
GMC-PM20	Surface Mounted Point Motor	£10.25
GMC-BPPM20	Surface Mounted Point Motor (5 Pack)	£47.95
GMC-PM20D	Surface Mounted Point Motor	£23.95

Point Motor Accessories

GMC-CDU	Capacitor Discharge Unit	£14.50
GMC-PM50	Connection Boxes (3)	£4.15
GMC-PM51	Point Motor Wire (Red/Green/Black) 10m Tripled (14x0.15)	£8.50
GMC-PM52	Point Motor Accessory Pack	£3.95
GMC-PM53	Harnesses for PM10D (2)	£4.15
GMC-PM60	Solenoid Point Motor Decoder/Harness	£17.25
GM09RB	Red/Black Twinned Wire 10m (14x0.15)	£6.25
GM612	45mm Hole Saw and Arbor	£3.65

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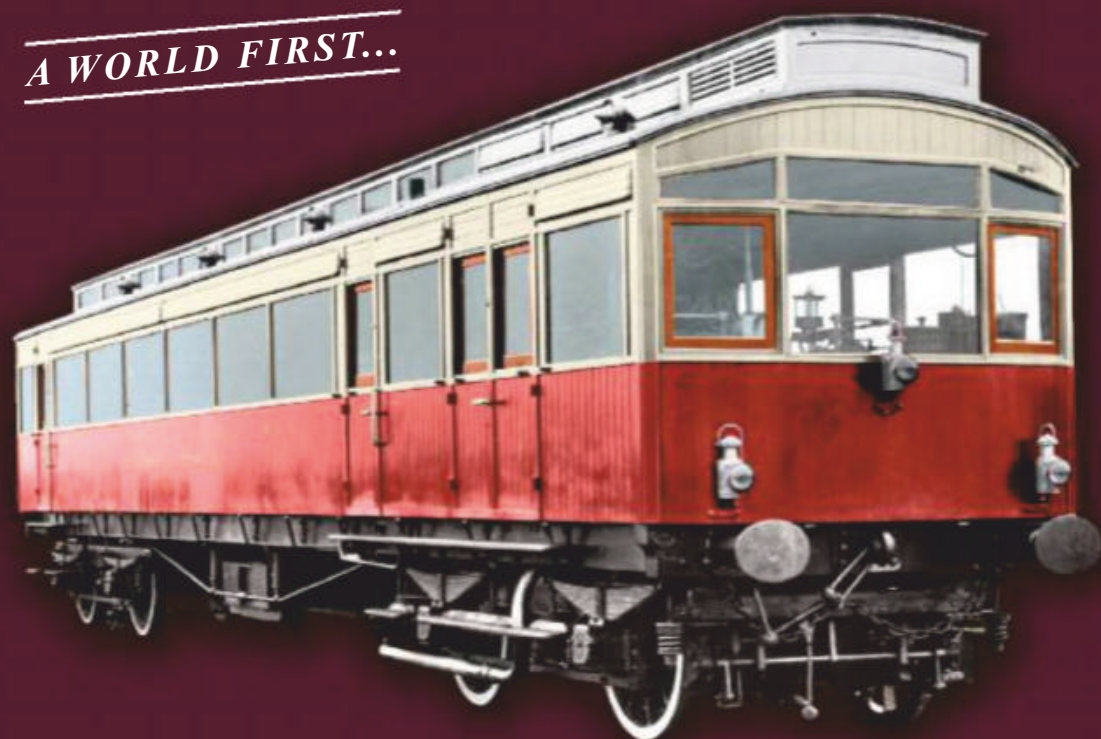


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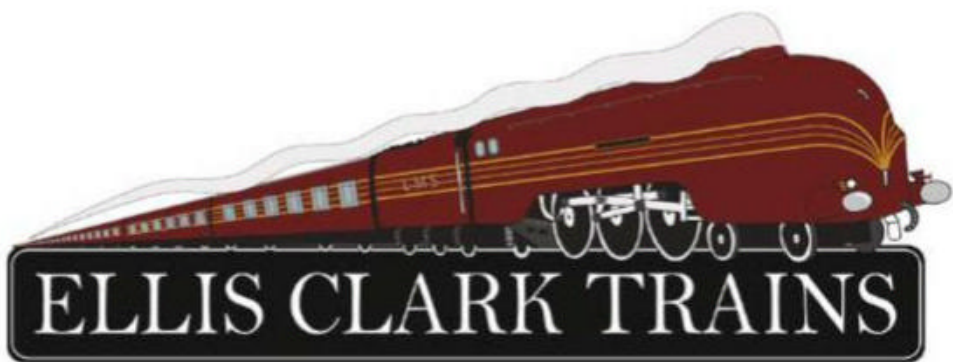
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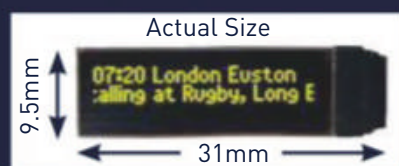
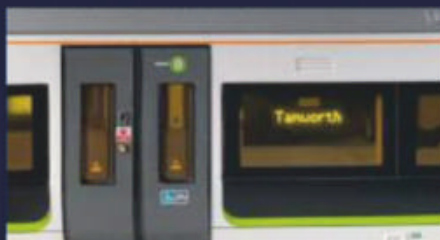
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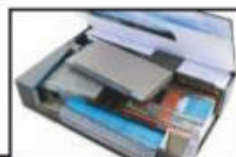
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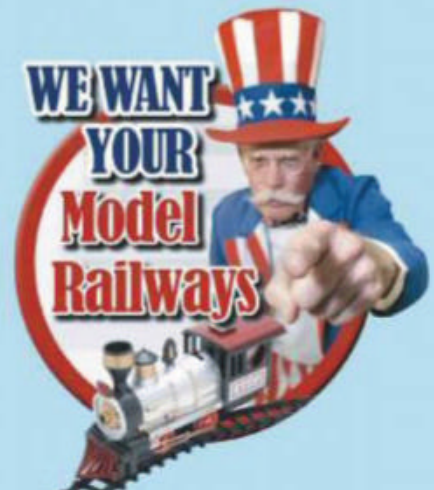
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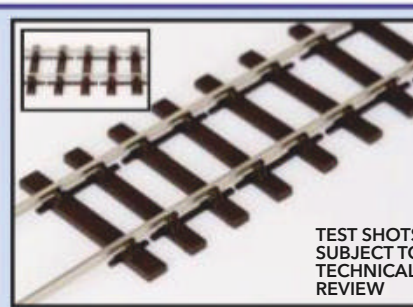


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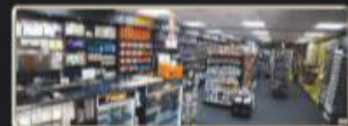
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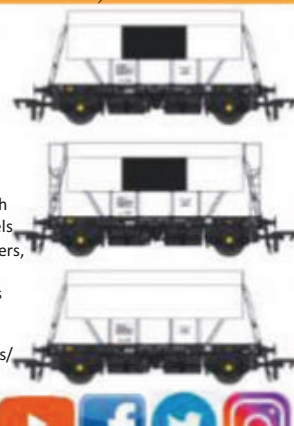
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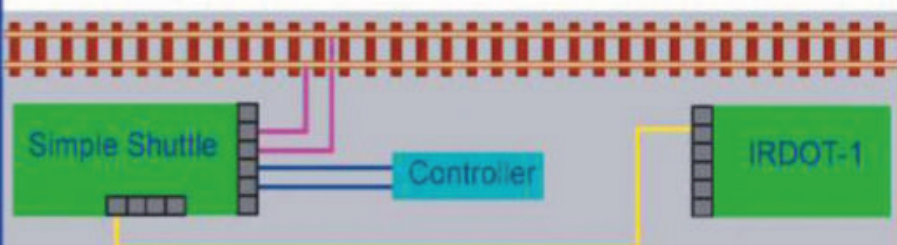
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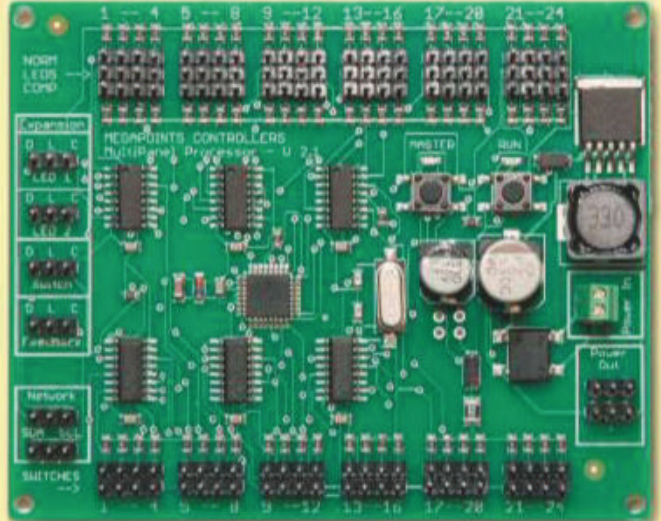
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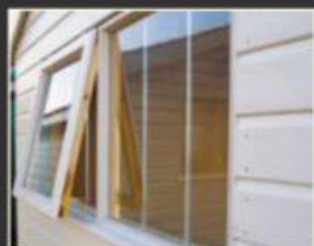
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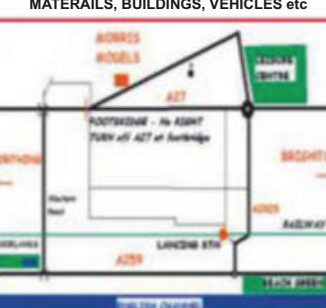
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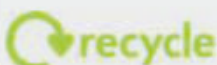
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Present your case

If there's a locomotive that you think needs to be offered ready-to-run, here's the place to voice your opinion...

Locomotive: Ruston & Hornsby
88DS Diesel Shunter

Gauge: '00'

Proposed by: Ben Bucki,
Keighley, Yorkshire

What is it?

Ruston's '88DS' diesel shunter was once a common sight at industrial sites throughout the UK. Though perhaps not the most exciting design, they nevertheless have a distinct character. Ruston introduced the 80/88hp diesel shunter in 1938 and construction continued until the early 1960s.

Examples could be found in almost any type of rail-served industry; petrochemical (Associated Octel on Anglesey had a small fleet), confectionary (Rowntree of York), steel, coal, general goods and automotive. Some spent their entire working lives slogging away at the same factory; others were used as private-hire machines by construction companies, spending their nomadic lives working on building/maintenance contracts. BR even used them for Departmental duties, with six based at Leeman Road, York, and 97020 at Reading Sleeper Depot.

Many have made it into preservation, either as 'starter' locomotives in the early days of large lines, or as the principle form of traction for shorter routes. Others are on display, such as the '88DS' on the Pensnett Trading Estate in the West Midlands, or as 'gate guardians' at lines that have subsequently outgrown them.

What would make it viable?

With their relatively simple design, the '88DS' might make a suitable 'entry level' choice, slightly more advanced than the basic Hornby RailRoad range for example, but still robust enough for younger modellers, while being prototypically interesting enough for more seasoned enthusiasts.

They bridge the steam/diesel transition era right up to the 1990s in industry, and up to the present day in preservation.

A wide selection of prototypically colourful liveries and brands could appeal to the younger modeller or beginner, with the opportunity to embrace accurate 'mainstream' liveries too. BR's '88DSs' carried BR green, Engineers' colours, and even BR blue with double-arrows. One preserved '88DS' even made it into Loadhaul colours.



There would be different cab options to offer, along with other detail variations.

Though the short wheelbase might provide some problems for dead-frog points, the locomotive's compact nature would make it ideal for micro layouts, or as a depot pilot for a corner-filling scene/industrial exchange siding, and their ubiquity and widespread usage means they could legitimately appear almost anywhere in the country.

Can I see a real one?

There are loads of survivors in the UK, either on display, stored, or operational. The Derwent Valley Railway near York, for example, has several, and they are used regularly on passenger trains. One is even on display in the Republic of Ireland.



Have your say

Do you agree with Ben's argument? Go to www.model-rail.co.uk and take part in our vote.

How to join in

Want to present your own case? Send us 400 words explaining your choice to modelrail@bauermedia.co.uk, putting 'Present Your Case' in the subject line.

Backscene

Musings we couldn't fit into the issue elsewhere, but which seemed very important at the time...



Richard Foster,
Editor

Spring is well and truly in the air as I write this and last Christmas feels like an age ago. The reason I mention Christmas is because I've just finished reading my Christmas present.

Never Again, the complete works of the Master Neverers Association (MNA), is a railway book like no other. For a start, you get four thick hardbacks that are held together in a sturdy card case (it weighs a ton!). Secondly, there has never been a canon of work that matches the output of the Neverers.

For those who aren't familiar with the MNA, it grew from a group of like-minded young enthusiasts from the Midlands who began to travel the country to ride behind, record and - above all - photograph steam. Cadres began to sprout in the North East and the North West.

If you've never heard of the MNA, you'll have seen individuals connected with the group - John Hunt, Ian Krause, Ken Groundwater, Maurice Burns and leader Paul Riley - to name just a few. They all eschewed the typical 'front three-quarter' railway photography and went to great lengths (and quite often heights and sometimes even depths) to obtain that elusive 'master shot'.

They stayed up late cleaning locomotives (sometimes with permission, sometimes without). They undertook hair-raising journeys just to photograph steam (Maurice Burns even rode his bike from County Durham to Inverness for a photographic expedition!).

This John Hunt (above right) shot is one of my favourites and typifies the Master Neverers' 'new approach'. The railway is set in the landscape. The drivers of the cars toiling up Milnshaw Lane in Accrington are oblivious to the pair of 'Black Fives' blasting away in the background. Steam trains were just part of the daily grind.

That's what makes *Never Again* such an apt title. The Britain that the 'MNA' captured on film has gone, never to return. There's the industrial north-east, a world of grimy, soot-stained terraced houses, of flat-capped miners going off to work with their snap tins as yet another



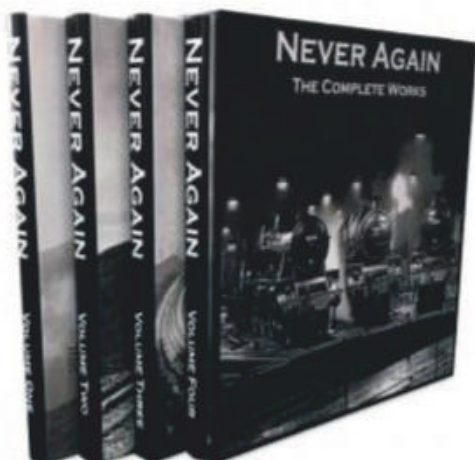
'J27' or 'Q6' blasts past, adding more smoke to the air. If you've ever watched *Get Carter*, you'll know the world that I'm talking about. It's hard for a child of the 1980s to conceive that this world is still within living memory.

It's the relationship with the railway that's the most entertaining - and saddening - aspect. Some of the 'MNA's' activities were dubious in their legality (trespass was the most common). They exited or climbed aboard trains without platforms (in order to ride behind a particular 'Duchess').

But how many railwaymen today would welcome a young lad into the cab of their train, let alone let them try their hand at driving it? Would the railway authorities specially roster a locomotive on a particular train as a thank-you for a photographic submission? And how many youngsters today would get together to tramp about the country photographing trains?

I can't recommend *Never Again* highly enough and, though not inexpensive, it's worth every penny. It's a truly fabulous collection of some of the most powerful imagery of steam ever and you can lose yourself in it for hours.

Never Again was also an apt title because this was supposed to be a limited edition book. Demand has surprised the publisher and a second print run is being considered. If you missed it first time out, visit www.mnabooks.com and register your interest. You won't regret it!



Modelling hours this month: Five

Note to self: Stop planning 'end-of-steam' layouts - I don't have the space!



George Dent,
Deputy Editor

The last 12 months has been interesting, in terms of liveries, in the north of England. As Northern has received cascaded (or cast-off, depending on your viewpoint) diesel units from various operators, many of them have continued in operation wearing their obsolete liveries.

As a result, I've ridden First Great Western blue-pink '150s' and green '153s' in and out of Manchester, Sheffield and Doncaster, plus a few Class 158s and '170s' in ScotRail colours to Leeds. Their numbers have



Northern Rail 150122 calls at Doncaster en route to Bridlington, on January 9 2019. BOTH: GEORGE DENT

dwindled recently, alas, with the spread of the dreary new white-blue corporate identity of Northern Rail.

For us modellers, especially those of a modern image persuasion, aspects such as this allow us to add greater variety to our layouts.



Former ScotRail unit 158871 has just arrived at Sheffield from Leeds, on March 7 2018.

Modelling hours this month: 18

Note to self: Must get around to finishing a couple of truck models I started before Christmas.

Selling your model railway

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