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Straight Down the Line - Opinion

by Trevor Hodges

This year the executive decided to try a slightly different arrangement in organising the Aus7 stand at the AMRA Liverpool exhibition. In past years the stand has been a bit of an ad-hoc affair with people contributing what they could and most of the real work being done by Anthony Furniss our Treasurer and John Parker our Vice President. Many people have helped out over the years and to these individuals we are extremely grateful. However I think the whole executive came to the unanimous decision that things needed a bit of freshening up.

After a bit of our usual back and forth via email (it pays to keep in mind that the executive live over a geographical spread of approximately 1000km) we decided to approach Chris Lord to see if he would be willing to put some much needed attention into the stand: its presentation, function and operation. Being new to the role, Chris took the job on with gusto and started organising things for the upcoming show.

I don't think Chris could have believed just how many hurdles he would be facing in this process; however he skilfully negotiated a number of hurdles to organise the stand. As is the way with these things Chris' wife Shelley pitched in and helped and I think we should all thank her for her efforts. Both are to be congratulated. The stand was a vast improvement over previous years. All their hard worked resulted in an excellent stand which I would guess generated the most interest we've had since the very first stand we ran at the same exhibition almost a decade ago.

We also have a new web site. Over the last few years a number of members (including executive members) have expressed their dissatisfaction with the Aus7 Modellers Group web site. The site had been up since the early days of the group, was almost chronically out of date and was looking distinctly dated. Earlier this year I put to the executive that we needed to do something about this situation as it was reflecting badly on the group. After some investigation we chose the company Wordpress as the site provider, mainly because I was familiar with them via my own blog Morpeth in O-scale http:// 7mmaussie.wordpress.com/author/7mmaussie/

The new blog is now live at http://aus7.org/ and is open to all members and visitors. There are a number of distinct advantages to using a blog site as opposed to the "shop window" type site we've used up till now. The main advantage is that the new blog is interactive: visitors can leave comments, direct questions to individual posters via email dialogue boxes and if you "follow" the blog you will be updated via an email message when someone makes a posting. In addition members can ask to have photos posted and the site has several Narrow gauge NSWGR loco 7505 "authors" so keeping it updated is not just left to one poor overworked individual.

Take a look at the new site and let us know what you think.

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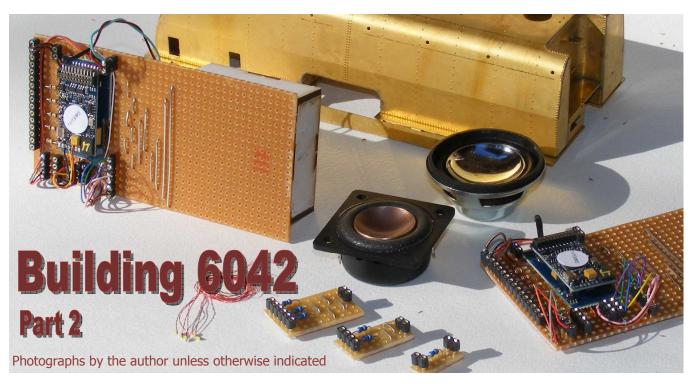
Please contact the Treasurer to obtain back issues.

Issues 1-14 sold out. Issues 15+ are \$7.70 each \$1.50 p&h for one or two copies. \$2.50 p&h for three or more copies.

All opinions expressed are those of the respective authors only and do not represent any official view of the Aus7 Modellers Group Inc.

On The Cover

gingerly crosses the Coramba Road trestle on Prof Klyzlr's Toorong layout featured in this issue on page 8

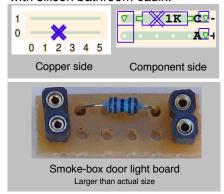


The wiring diagram held over from 7th Heaven Issue No 42 is included as the last of these four pages. A cursory glance will probably convince you that it is all too hard, but wait, as someone once said, "I am here to help".

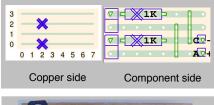
Suitable sized Vero style matrix printed circuit boards are used to simplify the wiring and to make it easier to terminate the relatively fragile leads of the small surface mount LED's which provide all the illumination. 2 and 4 pin plugs and sockets cut from the 32 way I.C. socket strip are used so that the 5 main units can be separated from one another. Separation is possible but the expectation is that the model will normally remain as a single flexible unit. There are 4 x 2 way connections between the water tender and boiler unit and 3 x 2 way connections between the boiler unit and the coal tender. This includes a single 2 way connection feed-through used to ensure that power pick up from the track is always from both chassis.

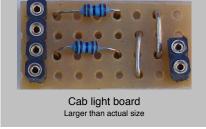
Although the main printed boards were designed and built first it makes sense, particularly if you are new to this, to start with the three smaller and much simpler boards. All the boards are cut from a larger piece of Vero type, Jaycar part number HP9544. The smallest board is used for the smoke-box door light. The board sizes are easily determined by counting the holes. this one is 2

holes high and 6 holes wide (approximately 7 mm x 17 mm.) The first drawing, approximately actual size is a view from the copper side of the board. The one track which needs to be cut is shown on the drawing with a "double X". This cut was made using a Jaycar hand spot face cutter part number TD2461. The next drawing and the subsequent photograph shows the completed assembly. These small boards will ultimately be held in place close to the location of the actual lights with silicon bathroom caulk.



The cab light board is shown next. The same method is followed only this board also includes two wire links which can be made from resistor lead off-cuts or tinned copper wire available from Jaycar part number WW4032. This board is 4 holes high and 8 holes wide (approximately 12 mm x 22 mm). All the boards use the 1 K ohm resistors supplied with the LED's.





Building the Model O Kits Garratt The DCC challenge

There is absolutely no doubt that the installation of sound and lights in this model is more difficult than is usually the case. 2 motors, 2 decoders, 4 speakers and 16 lights make this an interesting exercise. It is not that complicated, it is just that there is a lot of it.

Mostly pictures and diagrams this time that will hopefully encourage you to do it all yourself. (My apologies for the error on the first page of Part 1.

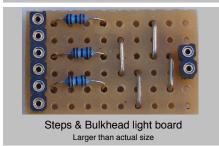
O scale is of course 8 times the volume of HO.)

John R B Parker

All these small boards utilise the I.C. socket strip for both the soldered termination points for the LED's and as the socket for the interconnecting 2 wire cable back to the main circuit boards in either the water or coal tenders.

The last of the three smaller boards is pictured below; this board covers the driver and fireman's step lights as well as the light on the rear of the cab wall which illuminates the mechanical stocker feed. The board is 6 holes high and 10 holes wide (approximately 17 mm x 27 mm).





DCC Extras (Revised from Part 1)

Essential

ESU Loksound

2 x Loksound 4.0 Decoders (21 pin) 2 x #51968 21 pin Adaptor boards

Jaycar

2 x AS3030 36mm 8 ohm speakers

2 x AS3028 40mm 4 ohm speakers

1 x HP9544 Vero type PC board 4 x PI6470 32W I.C. Socket strips

2 metres WM4516 16 way rainbow ribbon cable

DCC Concepts

2 packs Prototype white Nanolights (6 LED's in each pack with resistors) 1 pack Red/White Nanolights (6 LED's in pack with resistors)

Useful Extras

Jaycar

1 x WW4032 25 m tinned copper wire

1 x TD2461 Spot face cutter

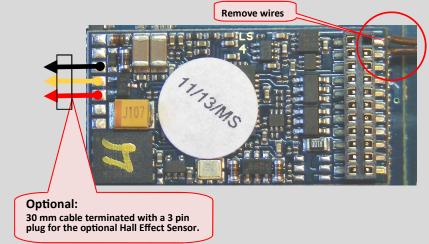
Model O Kits

1 x Garratt speaker enclosure kit

Footnote

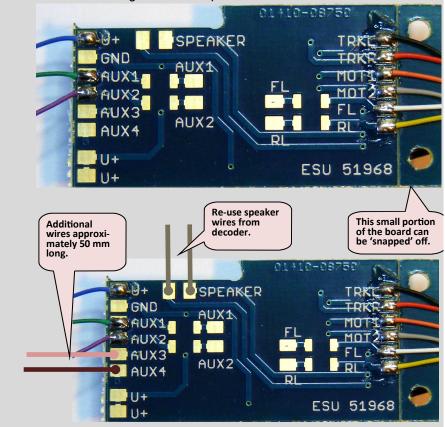
You will see from above that the speaker recommendations have changed. Testing underway suggests that the usual AS3028 will be preferred for the speakers in the boiler. Now back to building the model... If the editor concurs there will be a third part of this series.

Before moving on to the construction of the two main boards we will turn our attention to the decoders and their associated #51968 adaptor boards. The 21 pin version of the Loksound 4.0 decoder selected for this project plugs into the adaptor board permitting easy replacement if necessary without the use of a soldering iron. As supplied the decoder, shown below, includes two brown wires for the speaker connection. To provide the pluggable feature these wires should be removed by unsoldering or by simply cutting them off the decoder. Be careful that these two connection points are not accidently left connected to each other. A short at this point will almost certainly destroy the decoder.



The main boards include a provision to use Hall Effect Sensors for accurate "chuff" timing. If you feel you might like to use this approach a short lead terminated in a 3 pin plug should be connected to the decoder as shown.

Minor additions are also required to the adaptor boards, the rear side is shown, larger than actual size, before and after modification. The two brown wires which were removed from the decoder are attached to the speaker pads and pink and tan wires are connected to Aux 3 and Aux 4 respectively. It is a good idea to carefully 'tin' the gold plated pads on the board before soldering the wires in place.



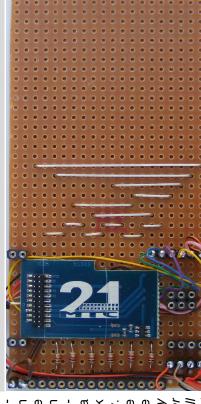
The two main matrix boards are shown full size. They are 41 holes wide and 20 holes nigh (approximately 105 mm x 52 mm). At first glance they due to the way the lighting is naving 6 resistors. As before the first drawings show the appear identical but ers with the coal tender board shared across the two decodthere may 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 Water Tender Main Board - copper side shows 13 cut tracks ×

The track cuts can also be made with a drill of suitable earlier. It is best to insert the wire links first followed by the 1000 ohm resistors then the copper side. Start by cutting the tracks where indicated drawings indicate the position using the spot face cutter. Don't be tempted to use any of the components similar to the smaller boards covered sort of power tool. The next held in your and sockets points. size WATER TENDER Comp

The missing socket on the connector should be at the possible to insert the decoder upside down but then it will not work and if powered cured in place on the main threaded through holes on nect to the adaptor board via op left corner. It is physically The adaptor boards are sethe board. The decoders conthe 21 pin connector. Check that it is inserted correctly fishing could be damaged. using ooards

ks where indicated especially specially specia

COAL TENDER Component Board



Coal Tender Main Board – Adaptor Board in position. Compare to the wiring diagram above. The decoder will plug into the adaptor board.



Spkr

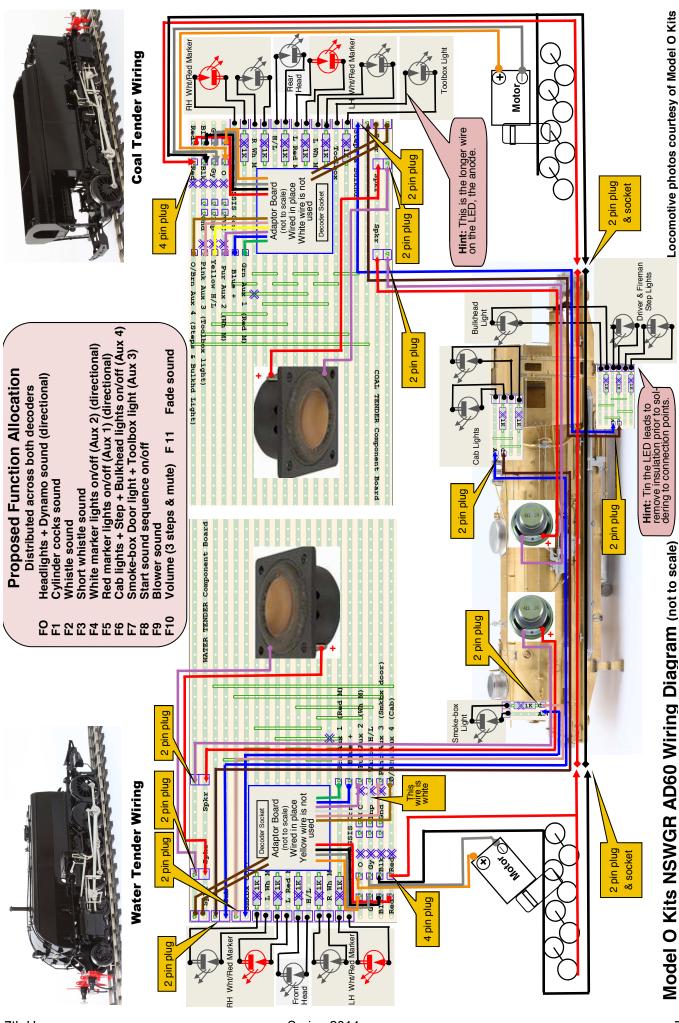
Spkr Spkr

Water Tender Main Board - Component side with 5 resistors.

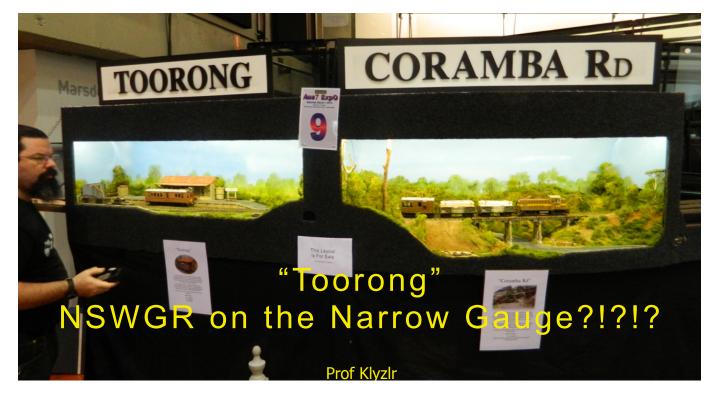
O/Brn Aux 4 (Cab)

QuID Quend

X1K



Locomotive photos courtesy of Model O Kits



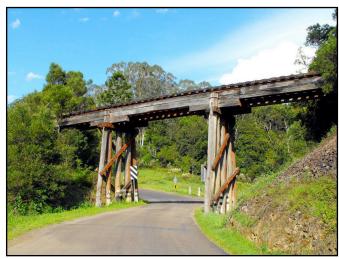
It's a long held truth that the NSWGR railway system is standard gauge. No ifs, no buts, it just is. However, veiled rumours and cryptic half-clues in dim dark corner of public records suggest that this almost was not the case. Up above the NSW central coast, the Glenreagh-Dorrigo branch at one time was envisaged as a narrow gauge operation. The hilly and tight-turning terrain of the area seemed to fit the primary benefits of a narrow gauge operation like a glove. And so it goes that traces of a 30" gauge line above Dorrigo can be found, passing through the locality of Toorong.

In model form, "Toorong" is a 14' long On30 layout, built over a 4 month period leading up to the Aus7mm Association 2014 10-year anniversary "ExpO" exhibition. The basis and concept of a NSWGR narrow gauge branch had been rattling around the grey matter for some time. After all, Victoria made the idea of narrow gauge feeder lines sourcing goods and funnelling it out of hard-to-build-railway-locations towards the mainline work very early on, and it seemed odd that NSW hadn't caught on to the technique.

Similarly, it had been noted that despite examples of O scale one could actually live with being presented, and a veritable tsunami of NSWGR locos, rolling stock and structures becoming available at unthinkably affordable prices, the number of NSWGR 7mm standard gauge layouts appearing on the scene was disappointingly low.

However, it was the discovery of an idyllic scene of a trestle crossing Coramba Rd, near the township of Megan on the Glenreagh-Dorrigo branch line that sealed the deal, "...I've got to model that..."

While the layout is built on the now-familiar foamcore-module-with-aluminium exoskeleton platform, the Coramba Rd scene really begged to be built as a curved module. Could the existing foamcore and Qubelok techniques be curved successfully? How does one curve Qubelok? And, surely those inherently square



The real Coramba Road trestle which inspired the model version on the cover.

Qubelok joiners can't work for angled-joint-assemblies, can they?

As an experimental testbed, Toorong answered these questions, (yes, it is entirely possible to build a curved module), and many more. Some features such as dimmable LED lighting were reasonably simple, others such as integrated drop-leaf 2 track traverser staging possibly pushed the technical and mechanical limits further than good sense recommends.

Toorong's track work is exclusively handlaid Code 100, and features super details such and fishplates and sleeper plates by Keiran Ryan Models. The trackplan takes some of it's cues from typical NSWGR practice, and supports both prototypical mid-branchline operations and Inglenook style shunting. Speaking of shunting, goods duties on the line are handled by 7505, an Alco diesel-electric loco built from a Mountain Blue



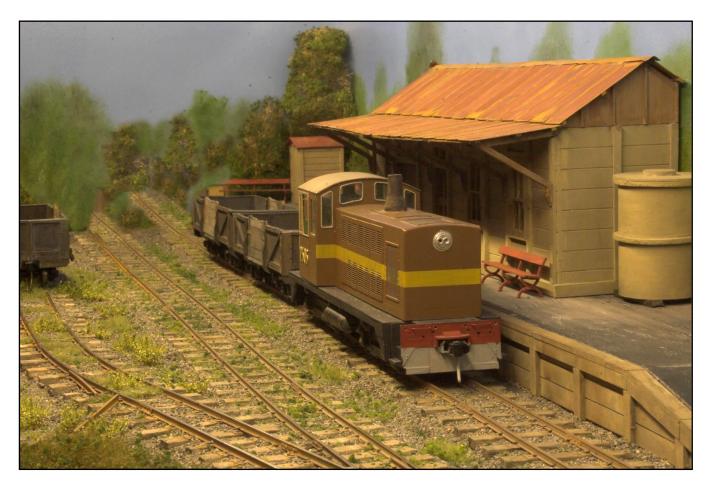
Curved module



Angled Qubelok



Miniatures ¼" scale body on a re-gauged S-helper Service SW9 mechanism. The nBS open wagons have been kitbashed from Warratah Model Co S-wagons and ride on Bachmann On30 Andrews bogies. The nBHG guards van uses Waratah Model Co PHG side castings, a stretched Ian Lindsay Models underframe, and a healthy dose of scratchbuilding. Passenger service on the branch is covered by a Cummins-powered nCPH, a scratchbuilt narrow gauge effigy of the CPH we're all familiar with on a stretched HO Life Like GP18 mech. Both 7505 and the nCPH feature Soundtraxx Tsunami sound decoders, with 7505 deploying an exciter rather than the traditional speaker/enclosure.





Structures on the layout take their cues directly from the NSWGR branchline playbook. With the recent outstanding kit offerings from Model-O-Australia, building the station platform and goods bank, PC3 station and associated rainwater tank and seats, was very enjoyable and remarkably cost-effective. Indeed, without these kits, Toorong would have struggled to present a plausible "NSWGR-esque" character. One structure which bears explanation is the "half a gantry" at the goods bank. While purchasing and cutting a ModelFXs brass gantry in half was considered for a few seconds, it took only a few seconds longer to form a passable representation from styrene I-beams, scrap nickel-silver rail, and some castoff scale chain.

The Coramba Road trestle is an obvious keynote structure, which really demanded to be scratchbuilt. Balsa stripwood was the primary material used, along with PECO SL14 spikes and liberal quantities of Grandt Line NBW castings. Despite obscene liberties being taken with virtually every prototype dimension, the resulting bridge and overall scene effectively captures the spirit and visual impact of the original inspirational image.

Toorong's scenery followed largely-proven fast and effective techniques. Landform surfaces were a layer of Chux Wipes and No-More-Gaps over a woven web of 1" cardboard strips. Real seived dirt was applied, along with various mixes of Woodland Scenics, Heki,

Modeller's-Warehouse, and natural scenic materials. Of note are the backscenes, which were "quick impressionist" renditions of background east coast aussie scrub rendered in Tamiya acrylic, Jo-Sonja goache, and Windsor-Newton water-soluble oil paints.

Toorong made it to the 2014 ExpO show with hours to spare, a relative rarity for a first-time-out layout on debut. The engineering behind the Qubelok modules proved itself with a smooth and fast setup. Operation over the course of the show was flawless, and the crowd reaction overwhelmingly positive. After a fast and furious four month speed build it was quietly heartening to see the smiles on the viewers' faces, and see the entire layout perform as intended.

A New Look

In keeping with our new Blog and logo I have given 7th Heaven a bit of a refresh, most notably the cover. Nothing too drastic and the same mix of content, news and advertising. Once again we have gone to twenty four pages, two of which are increased advertising but two more of content as well. But remember I can only publish what you the members contribute so PLEASE SEND ME SOMETHING. Photos of your models for the Showcase page especially needed as I have had to leave it out recently with nothing to include. Paul Chisholm - Editor



on30 Rescaled

Jim Longworth

While 7th Heaven tends to feature mostly 7mm scale models of NSW standard gauge prototypes, 0 scale modelling often involves the narrower gauges. Over recent years 0n30 has received a considerable boost since Peco and Bachmann started releasing kits and ready-torun 0n30 models. Following coverage of my diorama of a locomotive depot in the July 2014 issue of Continental Modeller this article describes how 0scale, 0n30 specifically, model locomotives were rescaled as Gn15 models.

0 Scale Narrow Gauge

0 scale modellers have a long tradition of adapting material from other scales to construct 0 scale narrow gauge models. 16.5mm gauge track is used to represent 30 inch gauge track. 00/H0 scale mechanisms are often reused underneath 0 scale bodies to make 0n30 steam or diesel locomotives. 16.5mm gauge wheelsets and bogies are reused under 0 scale bodies to make narrow gauge goods and passenger rolling stock. Even N scale, 9mm gauge, track and 9mm gauge mechanisms have been adapted to make 0n9 or 0n18 models.

Gn15 is the acronym for model railways which combine G scale and 16.5mm gauge track. In this application, G scale is widely defined with a concentration around the scales of 1:22.5 to 1:24. As Gn15 models such tiny prototypes many 0 scale items are appropriately sized for reuse in the larger scale. The boiler or engine hood on many 00/H0 scale locomotive bodies can be a bit too low or too small a size for Gn15. However, 0n30 locomotive bodies tend to be physically a little bit bigger than 00/H0 ones so making them potentially more suitable candidates for adaptation into Gn15 locomotive bodies. Two sources immediately present themselves for possible adaption: English 7mm scale 0-16.5 scale models and American ¼inch 0n30 scale models. Australian government and private

industrial railways sourced their locomotives from a diverse range of manufacturers, including British, European, American, and Australian suppliers. This is fortunate as likewise 0n30 have a diverse range of model locomotive styles from which to select their starting models. American models also offer many 0n2 and 0n3 potential candidates. Vagaries in the physical size of prototype narrow gauge items of rolling stock are so great that the difference in English/American scales and prototype gauges is irrelevant when the items are modelled.

15 inch gauge railways were the brain child of Sir Arthur Heywood. Heywood developed what he called the 'minimum gauge railway' at the Duffield Bank Railway in England. He settled on 15 inches as the optimum gauge. However, the only contemporaneous interest came from the Duke of Westminster for whom he built the Eaton Hall Railway (Heywood, AP, 1898, Minimum Gauge Railways: their application, construction and working, Clinker, CR, 1950, reproduction; Smithers, M, 1995, Sir Arthur Heywood and the Fifteen Inch Gauge Railway, Plateway Press).

'No. 1': Transforming the Bachmann, ready-to-run, 0n30, 0-4-0, saddle tank, Porter locomotive into a Gn15 model locomotive has to be about the simplest conversion possible.

The wire handrail was removed because it was of too fine a diameter wire to represent a G scale handrail, and was much too close to the locomotive's body for a G scale figure's fingers to wrap around behind the handrail and hold on. Many handrails on 0n30 scale models become unnecessary in Gn15 models because G scale workmen are physically much taller than 0 scale figures so can reach all over the locomotive while they stand on the ground beside the track. They don't need a handrail to climb

onto the locomotive with nor to hold onto. The front and rear shunter's steps and support brackets were carved off. The smooth parts of the imitation timber buffer beams were roughed up with the point of a blade to simulate wood grain.

The cab was cut off above the sills of the side and spectacle plate windows, and a wire safety rail bent up and glued in place across the open rear of the footplate. No.1's drivers have to sit on a thin brass bar across the back of the footplate loud and constant is their complaining about numb-bums! To stop smoke blowing into the driver's face, the funnel was doubled in height with a short length of suitable diameter styrene tube. As No.1 is only operated during daylight hours the front lamp was removed so there are now no lamps fitted. A new safety valve was made by reusing an 00 scale buffer and positioning it on top of what had become the now exposed steam dome. A ring on the end of a wire was cemented into the side of the steam dome and a short length of fine jewellery chain was carried forward to the lever which rings the bell. A screw-down hand brake was fabricated from bent wire and glued in place. A reversing lever was fabricated from scrap pieces of brass strip and wire and glued in place.

'JUDY': Likewise, transforming the Bachmann, ready-to-run, 0n30, 0-4-2, saddle tank, Porter locomotive into a Gn15 model locomotive is a simple conversion.

All of the wire handrails were removed and the holes were left open as testimony to local workshop modifications. The front and rear shunter's steps were treated as for No.1.

The cab was cut off immediately above the side and front imitation timber panels. A new higher cab roof, from the Bachmann 0-4-0, was installed on four tall styrene square rods. I aim to have the roof of locomotives, on which a driver





stands on the footplate, be no taller than about five times the gauge of the track, i.e. 82.5mm. The funnel was raised higher, and the front headlight was raised up the funnel to mask the joint. An 0 scale reversing lamp was added to the cab backplate. As both lights are of the type which burnt liquid fuel JUDY has no need to be fitted with an electric generator. A new safety valve was made by reusing an 00 scale diesel horn and positioning it on top of what had become the now exposed steam dome, and a short length of fine jewellery chain was carried forward to the lever which rings the bell. A seat for the driver was cut from scrap styrene sheet and glued in place on top of the existing narrow shelf across the back of the cab. A screw-down hand brake and a reversing lever were fabricated and glued in place. Two replacement loop handgrabs were made from larger diameter brass wire and installed on top of the side cab panel to be in a more appropriate place for the driver to grab one and swing up into the cab.

As many of the details as was reasonably possible were picked out in brass paint to add visual interest and contribute to making the locomotive look old. The buffer beams were painted in red gloss.

The driver started out as a G scale American Station Porter who was bending down to lift up two suitcases. The handles of the cases were cut off, and new handles fabricated from brass wire for reuse elsewhere. His hands were then passed through my version of plastic surgery with craft knife and small files till they more closely resembled hands. Most of the officious paraphernalia was cut off his uniform to make him look less American.

'DENISE': Transforming the Bachmann, ready to run, 0n30 Davenport diesel into a Gn15 model locomotive involved a bit more kitbashing. On removing the locomotive from the box to test run it the motor whirred, but nothing moved. An e-mail to Bachmann

resulted in the company posting me a set of new gears and wheels, which were then fitted. On fitting them it still wouldn't move, so a second e-mail sought a set of replacement gears for the gear-train between the motor worm gear and the replacement gears on the new wheel sets. Now it moves.

A cab was fabricated from styrene sheet. The handles on the engine access doors were cut off and replaced with bigger handles from bent brass wire. A new exhaust system was fabricated from telescoping styrene tubes. O scale electric style lights, from 0-Aust Kits, were fitted front and back. An air intake was adapted from an 0-16.5mm scale buffer by Peco. A fuel filler cap was fabricated from an 00 scale Peco coupler pin, with a piece of brass wire glued across the top.

The driver was an unpainted figure from an Eckersleys art and craft shop. I filed her bare toes smooth to look like leather boots and painted her in suitable work clothes colours.

'JENNY': Transforming the Bachmann, ready-to-run, 0n30 two truck shay into a Gn15 model locomotive was another simple conversion. The locomotive frame measures 47mm wide, which is well within the suitable range for Gn15 locomotives. The model tries to emulate an extreme development of what have been colloquially called the 'Baby Shays' (Model Railroader, September 1985).

Handrails, shunter's steps, and the small cab steps were removed. The holes were filled with modeller's putty and smoothed over. The cab was cut off at the level of the cab side window sills and top of the spectacle plate windows. The hungry boards for the load of fuel wood were added for visual interest. though the locomotive burns coal. As JENNY came equipped with an electricity generator she has been fitted with 0 scale electric style lights, from 0-Aust Kits, front and back. The cab roof was raised up on styrene square strips and reused. Styrene tube was used to raise the







funnel to minimise smoke from blowing into the cab, and a funneltop ring was fabricated from telescoping a short length of slightly larger diameter tube. The joint between the original funnel and the extension was filed smooth. The lovely piping and valves in the cab were picked out part in copper and part in brass paint to highlight them. I tried sitting the driver in the hungry boards; but that placed him too far away to reach the controls in the cab, so a large countersunk headed bolt, from my shed, was partly smoothed over with modelling putty and adapted as a circular sprung stool for the driver to sit on. A length of insulated copper wire was shaped as a siphon hose and run from the water pump along the running board towards the front. A suction sieve was made from two telescoping lengths of styrene tube and draped over the front buffer beam.

'EMILY': EMILY started out as a Peco 0-16.5, 0-6-0, tram locomotive body kit. Assembly followed the

instructions with exceptions. Both cab doors were cut out and the doorways enlarged to allow a G scale figure to climb in. The cab frontplate, upper backplate, and roof were omitted. The funnel was made taller. The water tank fillers and vent pipes were moved forward to make spaces for storing coal at the rear of both side tanks. Styrene strips were inserted across the tops of the side tanks to delineate the front edges of the new coal spaces. The handles on the smokebox dart were too small for a G scale figure's hands to grasp, so were replaced with a new dart fabricated from brass wire. Both front sand pots were relocated to on top of the firebox and reused as if they were gauges, one on each side of the repositioned and reoriented sandbox. A dress maker's pin was bent to shape and fitted through a ring on the end of a wire to operate the globe valve. A new firebox back plate and cab floor were fabricated from styrene sheet, and decorated with a regulator handle, small diameter hand wheel, and imitation firebox door. A reversing lever was

fabricated from scrap pieces of brass strip and wire and glued in place. The handle cast on the top of the screw down brake broke off, so was replaced with a short piece of brass wire passing through a hole drilled in the top of the shaft.

A very old Fleischmann 4-wheel diesel mechanism was acquired from the Train Trader at Pymble, and butchered to fit into the available space inside the locomotive body. The Peco model kit's cast metal body is so heavy that no additional weight was needed.

'AUDREY': AUDREY started out as a Peco 0-16.5, 0-4-0, saddle tank locomotive kit. The cab spectacle plate, cab rear sheet, and cab sides above the bottom of the cut out were all cut off. A lowered foot-well was inserted into the cab floor as a receptacle for the driver's feet to lower his overall height so preventing him from towering too tall over the rest of the model.

The driver started out as a German military figure with his left arm raised giving the Nazi salute. The arm was amputated at the shoulder and rotated downward to position it as if he is turning a valve on the back-head. Super glue and copious modelling putty filled the cut and repainting masked the surgery.

On all of these models Kadee 0 scale couplers were chopped off to shorten their overall length and butchered to suit, then fitted with some styrene packing pieces to adjust their height as desired. Items generally remain unlettered and unnumbered pending my working out how to do it.



Postcards from Toronto

Part Three By Stephen Reynolds



We continue our saga of Toronto where we left off with the station building. The doors and windows are now prepared and we move on to the construction of the walls and roof. For the walls I used Northeastern Scale Lumber Clapboard/Weatherboards. The boards are 8" wide on the prototype, the clapboard sheets are milled at a scale 9" wide but this is close enough for me.

The height of the boards worked out well, with one board left over at the top. This top board was removed and added to the very bottom board to become a kickboard as per the prototype.

Working from my own measurements of the station and using the copied plan of the original building I began setting out the position of each room along with the doors and windows. At the same time I also marked the position of the eight awning brackets. Starting a scale 1ft in from both ends then evenly spacing them along the wall. Where a bracket fell over a window or door I moved the offending opening either way so as not to fall foul of the bracket.

I then proceeded to cut out all these openings leaving one board on the bottom where the kickboard is, the top of which would be the floor level.

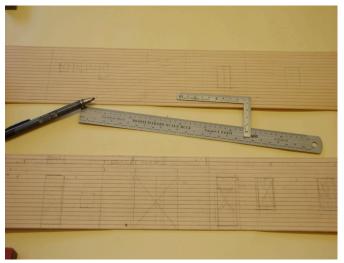


Photo 1: Marking out.



Photo 2: Openings cut out and Primer applied.



Photo 3: Painted with flat plastic wall paint.

Bracing was cut from cedar approximately 6mm square. Apart from the waiting room there was to be no internal detail so the bracing was rather robust. I like to think my models will survive the test of time.

The front, back and both sides were given a good coat of Shellac to seal all components. Once dry, all sides were given a spray coat of Export Grey Primer and allowed to dry.

The paint for the weather board was something I have wanted to try. I used Dulux flat plastic wall paint purchased from Bunning's paint department in a 500 mil test pod for around \$7.00. Cornmeal was the shade I had mixed and I applied three coats. The first coat gave a transparent look to the walls, where you could still see the grey primer through the paint, a very worn-out and faded look. Great if I was after a weathered finish but I wanted a more maintained appearance. That was achieved with the next two coats but the weathered look I will keep in mind for future projects.

Also I added a small amount of Burnt Sienna acrylic tube paint to slightly darken the shade to closer match the prototype. This is one of the advantages of using this paint, as artist acrylic tube paint can be mixed in with it to darken or lighten the shade.

The windows and doors were added next and the walls were brought together glued and clamped. A floor of balsa and internal walls were added to the waiting room as this is open and can be seen.

The roof was constructed next. I was concerened that being so long, 21 inchs or 540 mm that it may bow and if it did it would certainly stand out. So I used 3mm ply for the base and braced this on the inside of the roof with 3/8 inch or 10mm cedar strip wood, glued about midway-up. At the peak of the roof I used a triangled piece of balsa around 12 mm or ½ inch to join both sides together at the peak.

Before this could happen and the three parts of the roof were joined together, I applied the corrugated iron while the ply was still flat on the workbench. I should add here that the three parts are not all joined together. The front and back are joined together as one separate unit, that is removable. The awning is another separate piece but this is attached to the main building, glued to the brackets.

I sourced my iron from Barnes Hobbies in Newcastle. It comes in 27 cm by 15 cm sheets. I do my iron roofs so I don't have unrealistic overlaps yet still achive the look of individual sheets. I first cut the iron to the length required. On the front part of the station roof it was 8 scale ft, the back 9 scale ft and the awning was 11-1/2 scale ft. The panels are cut from the main sheet using a Stanly knife and at this point sprayed with, you guessed it, good old Export Grey Primer. Once dry they are marked out into prototype width usually around 2 / ½ scale ft wide, making sure each sheet is even and there are no narrow sheets at the end of each panel. I draw a pencil line down the full length of each sheet.



Photo 4: Walls glued & clamped.



Photo 5: Looking at the underside of the roof with bracing added.



Photo 6: The three Roof parts with sheets marked out and ready to be finished.



Photo 7: The roof has been finished but not the awning

Next I place the panel on a piece of 4x2 timber with one sheet overlapping the edge of the timber and simply bend this sheet down and then back up past the horizontal slightly, then back to the flat position. Moving on to the next pencil mark/sheet till the end of the panel. This process produces a crease in the iron giving the impression of separate sheets. I then try to eliminate the gap as much as possible where two panels are mated up.

The cut-out for the chimney was done before the ridge capping went on. The bargeboards are cardboard strips, the ridge capping is .001 aluminum sheet cut 15mm wide and a crease formed in the middle, same material was used for the covering at the end of the roof and over the bargeboard. Once happy with the roof sections, front, back and awning, the roof was given yet another coat of Grey Primer. This goes someway to covering up the pencil lines and the odd shiny spot peeking through where the paint has been scratched or chipped in the process.

Next in the procedure I painted each individual sheet with acrylic paint. I used two shades of light grey. One was Polly Scale Mow Grey the other Tamiya RLM Grey that are just slightly different to each other. Once dry weathering powder was applied sheet by sheet at all times trying to create subtle differences but giving an overall united appearance.

Chimneys and the awning brackets will be covered in our next instalment. Until then.

Photo 7 by Chris Lord. All other photos by the author.

Poster sourced frtom the Internet.

Vice President John Parker displays his skill on the Aus7 stand at Liverpool

O Scale At Liverpool

This year the Australian Model Railway Association exhibition at Liverpool had quite an O scale presence.

For a start the Aus7 stand that Trevor praised in Straight Down The Line was greatly improved over previous years thanks to the efforts of Chris and Shelley Lord and the members who volunteered their time and skills to assist. Quite a few new members were recruited, perhaps inspired by some of the models on display which included David Lord's British locos and his partially finished Garratt in a glass case. There was also a PSM C38 pilot model and our membership drive where one of these could be won received a lot of notice.

Just next door was Arakoola, strategically located straight in front of the hall entrance. The layout received many favourable comments and gained two awards; Best Private Layout with a NSW Theme and Exhibitor's Choice. Of course the Arakoolian folk were quick to direct anyone who looked more than casually interested to go next door to the stand.

Also in "O-Scale Alley" was the Model O Kits stand which was so impressive that it was awarded Best Commercial Stand. Glenn had his own small layout on which the Garratt pilot model was shuffling to and fro (when he could get it back from Arakoola) as well as displays of his own products and the just acquired Waratah range.

Of course on the other side of the hall was Bergs Hobbies with their small O scale diorama layout and Peter Krause showing what O-Aust has to offer.

A terrific effort by everyone involved in presenting our great scale to the public and the wider modelling fratenity.



Ever wondered about adding sound FX to your layout?

Ray Rumble

After three years of exhibitions and many awards, the Arakoola syndicate felt that the layout needed new features and it was decided that some subtle sound effects might add interest. Not all details need to be visual! Across the 11 metre front of the layout the scene presents four distinct areas with potential for sound to be added. Left to right there is Grizzlers Rest Hotel, the main street town centre, then the Norco dairy factory and finally the creek/ railway bridge area with our patient local fisherman and his dinghy.

After some serious homework I found a magnificent little digital storage board, Pricom Design's Dream Player LITE out of the US. Measuring a tiny 80mm long x 50mm wide x 20mm high and using a Micro SD card, used in cameras for the storage of the sound files and configuration file that tells the chip how to perform. The Pricom board is stocked by Model Railway Craftsman's Blacktown store (\$A55).

ELECTRONICS

First prepare the box (Photos 1 & 2) by drilling holes on the top to mount the volume control and power switch. Drill hole on the front to mount speaker socket. Drill a series of holes on the sides for airflow (amplifier gets slightly warm with continuous use). One of these side holes can allow the power pack cord to enter the box. I chose to hard wire the power pack 9 volt cord via the power switch. On the bottom of the box (removable with 4 screws) you need to drill two 3mm holes over the top of the Dream Player LITE. The board has two small LED's on the board to indicate that power (green) is on and the audio (red) is playing. The indicators can be viewed through these two holes if needed.

Next provide some form of mounting for the Dream Player board. I had in stock some neat nylon stick-on mounts that lock easily into the 4 corners of the board. Next wire the 3.5mm stereo plug with shielded wire that will plug into the output of

the Dream Player. As they are short 10K pot, too much signal appears at leads, we used ready made plug and shielded wire from old mini headphones that seem to be supplied with just about every piece of electronic equipment so no need to purchase.

Unpack the amplifier and read up on the wiring configuration. Left hand wire (1) to the large pin on speaker socket, wire 2 to the power + terminal on the player board, wire 3 is joined with a wire from the small pin off the speaker socket and placed in the – power terminal on the Dream Player. Wire 4 is soldered onto the left terminal of the pot along with a wire to go to the - terminal on the player board. The Dream Player output 3.5mm plug will have two wires (usually white and black) the white soldered onto the right side terminal on the pot. Wire 5 from the amplifier is now soldered onto the centre terminal of the pot. Next solder the + wire from the 9V power pack to the centre pin on the power switch and another wire from the bottom terminal of the switch to the + power terminal of the Dream Player (it already shares this terminal with the No. 2 wire powering the amplifier). The speaker cable can then be soldered to the speaker plug with the + wire soldered to the large flat plug terminal and the - wire to the thin round plug terminal. The interior of the box should look like Photo 3.

Note the floor of the box on the left hand side indicates the position of the two observation holes, the top one to observe the green LED (power) on the Dream Player board and the larger second hole to observe the red (audio playing) LED. The amplifier then just folds over and sits on top of the Dream Player output socket and the lid fits snugly to hold firm the amplifier module with the 4 corner screws. It pays to fully read the Dream Player manual supplied with the board. The only variation here is the volume of your WAV file or the output coming off the Dream Player which should be at standard line level. I found with a

the input and I needed to place a 20K resistor in series with the amplifier input so that a reasonable volume for sound FX is achieved with the pot half way open.

SPEAKER

I made up a couple of wooden speaker enclosures to house the Mylar 40mm speakers but now Model Kits (sales@modelokits.com) produce an easily assembled square speaker box (\$6 for 2). Use speaker wire with the black stripe indicating + and - for ease of wiring.

AUDIO

I am presuming that the modeller has some knowledge of audio production software. I have been using ADOBE AUDITION since the late 90's which is a simple programme that downloads all manner of audio files and you can manipulate them in a multi-track mix back to stereo. The sound files MUST be saved as WAV, 16 bit, 44.1 KHz STEREO files. I found a free sound effects site called www.freesound.org/ which provided a huge range of FX under any category you like. Some FX files are saved as MP3's so you will have to convert to WAV format. You have to sign in and you are restricted to downloading one FX every 3 minutes. It is free but they encourage a donation to the site. Make sure you save the final mix as STEREO L & R as the board will not play mono.

CONFIG FILE

This is a little confusing at first but read the Quick Start Guide that comes with the Dream Player and it explains the Config file that instructs the player how to operate. You can download the Config file from the Pricom Design website. Arakoola only needed the player to begin playing when it sees power (9vDC) and then loop at the end of the WAV

file. Once you download the sample Config file it is simple to activate the auto start function and then the Loop Mode function by deleting the # sign before each instruction. It will play happily all day until you switch it off. Of course, the Dream Player does many many other nifty functions like triggering the player with sensor units. It's all in the manual.

DREAM PLAYER CHIP UPDATE

You will need to also download from Pricom the latest update for the chip. Our boards came as Version 1.3, however the update is now at Version 2.0. The Guide has instructions how to run this update.

All that is left is decide where to place the speaker on the layout and how and where to fix the black box. On Arakoola we propose permanently fixing speakers on the layout and the black box on Velcro on the rear of the layout modules so that the volume can easily be adjusted and the power pack can dangle down to power cords that normally run along there for lighting etc. The volume should only be a suggestion of sound and maybe kookaburras or cockatoos a little higher as you would hear yourself walking down the Arakoola main street out in central western NSW in the 1950's or 60's.

PARTS LIST

Box 110mmx65mmx36mm (Jaycar No. HB6075) \$4.95

Micro SD Card 2 GB with adaptor (Jaycar No. C4998) \$7.95

Amplifier 3.5W 4 ohm Kemo MO31N (Jaycar No. AA0223) \$17.95

Potentiometer 16mm 10K Log (Jaycar No. RP7610) \$1.95

Speaker 40mm 2W Mylar Cone (Jaycar No. AS3028 \$8.95

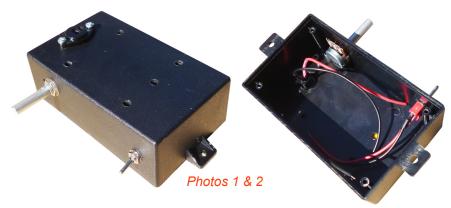
Speaker Socket 2 pin Din (Jaycar No. PS0340) \$1.45

Speaker Plug 2 pin Din (Jaycar No. PP0300) \$0.65

Power Switch SPDT Toggle (Jaycar No. ST0300) \$2.95

Volume Knob 16mm (Jaycar No. HK7020) \$2.75

Power Pack 240vAC 9VDC 500 mA (Jaycar No. MP3146) \$17.95







Amplifier





Commercial News

Trevor Hodges

Big River Models

Big River Models, 1/30 Todmorden Rd, Buttaba, 2283, (02) 4975 5501, johnhalcrow3@bigpond.com, have passed on the news that the TAM car kits are now ready except for bogies. The patterns for the bogies are now almost complete following which spin casting moulds will be prepared of these. If all goes according to plan the kits could be available by the time of the October Forum.

Pattern work for MHO and VHO vans is well under way and etches for the three groups of steel cars (the N, HUB and RUB cars) are being prepared at the time of writing.

Ixion Models

Ixion Models, PO Box 303, Quakers Hill, NSW, 2763, Australia, (02) 9626 9273 or (02) 4957 415, admin@ixionmodels.com and www.ixionmodels.com advise that a re-run is under way of the Hudswell Clarke 0-6-0ST in a new Forest Green livery, lined in black and red. These locos are expected to be released before Christmas, 2014.

Ixion are also considering a re-run of Manning Wardle 1021, this time only in unlined black. If you're interested, please email your contact details to the address above.

Ixion is working in conjunction with a company in the UK on the production of a new industrial tank locomotive which will be suitable for Australian industrial layouts. More information will be available shortly.

Model O Kits

Model O Kits, PO Box 379, Sydney, NSW, 1700, (02) 97073390, 040493663, http://www.modelokits.com & glenn.scott@hhpackaging.com.au report that a small number of AD60 Garratt kits are still available. G and GP wagon stock has arrived and was on sale at Liverpool. Stock of both wagons will be available at the Oct Aus7 Forum.

The BS and FS carriages are slightly delayed and should be available mid 2015. The 36 class locomotive is planned for a June 2015 release with a pilot available for the March 2015 Forum. Future kits planned under the DJH brand are: TRC, steel BD and BBW wagons with further locomotive kits to be announced early next year (in 7th Heaven of course!).

New laser cut kits are: a C2 toilet block, C2 toilet block with lamp room and a low relief shop front. A laser cut speaker box for the AS3030 speaker is now available, with a second "back-to-back" version planned. Future planned laser cut kits are: a G2 goods shed, cityscape terrace houses/shops and telephone boxes.

Waratah

Model O kits announced they have recently acquired the Waratah Model Railway Company from proprietors Chris Harris and Dave Morris. Model O will continue to supply all existing kits and components and plan to add to the range. They are currently working on restocking a number of lines and hope to be fully stocked by February/ March 2015.

The ICV and S truck kits will be back in stock in time for the October Forum. Currently available kits include the RU, KF and BD wagons. The K, LV, U and CW wagons should be back in stock by January. Following this will be the BWF and PHG guards van by end of March.

The first new kit to be made available under the new ownership of Model O will be the HG guards van. Plans are in the pipeline to upgrade the entire range of 4 wheel wagons to the same standard as the current injection moulded K, U, LV and CW wagons. Waratah plan to follow the HG with an LHG guards van in the second half of 2015.

The Waratah website is still accessible via the old web address and will continue to be into the foreseeable future. Work is currently being undertaken on a new Model O Kits website that will incorporate an online shop with links to a blog and Facebook page for updates.

O-Aust Kits

O-Aust Kits info@oaustkits.com.au, and via the web site at www.oaustkits.com.au, at PO Box 743, Albany Creek, Qld, 4035, mob 0419680584 or (07) 3298 6283 have advised that kits for the MHG goods brake van, HCX branchline passenger brake van and C30T locomotive were released at Liverpool and demand was such that only three MHGs were left at the end of the show. More kits will be produced in due course. Limited numbers may still be available at Bergs Hobbies.

Modellers interested in purchasing a C30T kit are reminded that the basic kit stocked is the saturated locomotive with P class tender. Superheated locomotives and alternative tenders are available to order only.

There is still a bit of development work to be completed on the Tulloch 1947 10,000 gallon tank car kit; samples of which were on display on the O-Aust stand at the recent Liverpool exhibition. A release before the end of 2014 is still not out of the question.

Buff line decals for lining NSWR passenger cars are now available.

Planned releases for 2015 at this stage are the revamped D50 locomotive with "Commonwealth" tender, and the LFX and BX dogbox coaches.

Membership Plus

Renew your membership of the Aus7 Modellers Group before December 31 2014 and you could be in the running to win a magnificent PSM O scale model of NSWGR C38 locomotive 3805 kindly donated by Precision Scale Models.

What an opportunity! There has never been a better time to renew your membership!

You'll never miss an issue of 7th Heaven but you also gain an automatic chance to win a beautiful O-scale 38 class locomotive valued at over \$3000!

You get one chance to win for every year of membership, up to a maximum of 3 years! Any current member who signs up for three years gets a fourth bonus chance to win as a part of their membership! How can you beat that? That's 4 chances to win!

Financial members attending the next two forums will also have the opportunity of winning an additional chance which will be offered as a lucky door prize.





Photograph of an early pilot mode courtesy of PSM.

This offer applies to memberships of the Aus7 Modellers Group taken out before Dec 31, 2014.

The offer is limited to one membership per person and to two members of one family.

Each year a member signs up for gets them one chance to win, with a bonus chance to win for any current member who signs up for 3 years (the bonus chance to win is limited to renewing members only).

The offer is limited to a total of three years advanced membership.

The cost of a single year's membership is \$35 for Australian members and \$50 for overseas members.

The offer is limited to memberships for the years 2014/15, 2015/2016 and 2016/2017.



A full list of all the conditions of entry applicable to this offer can be found on our website.

http://www.aus7modellersgroup.org/

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Name.....

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I wish to renew for [] years [Add 1, 2 or 3 in the box] I have enclosed payment of [\$]

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Post to .. The Treasurer Aus7 Modellers Group Inc. P.O. Box 3404 Asquith NSW Australia, 2077

Payment can also be made by direct bank transfer. Send the funds to

BSB 062-233 Account Number 1017 2076 Please add your name and membership number in the reference field

Email: anthonyfurniss@rocketmail.com

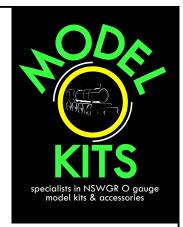


WARATAH

MODEL RAILWAY

COMPANY





"It is with great pleasure we would like to announce our recent acquisition of the Waratah Model Railway Company from Chris Harris and Dave Morris.

We will continue to supply all existing kits and components and plan to add to the range. We are currently working on restocking a number of lines and hope to be fully stocked by February/March 2015.

We plan to complete the HG Guards van kit project in the coming months, along with extending the range of 4 wheel wagons with quality injection moulded kits like the existing K, U, LV and CW wagons. We are also planning a kit of the LHG Guards van with an expected delivery of second half 2015.

Dave Morris has offered to continue his involvement in the business in a technical capacity sharing his significant knowledge on rolling stock to further develop the range.

We would like to thank both Chris and Dave for the work they have put into establishing a high quality brand and business."

	Price List Sept 2014					
KITS K	OPEN WAGON (Not currently available)	EACH \$140.00	4 PACK \$500.00	RAILWAY INFRASTRUCTURE 24' GIRDER BRIDGE SPAN (BRASS & TIMBER) 1 SPAN	\$115.00 - 1 SPAN	
KF	FLAT WAGON	\$140.00	\$500.00	(Not currently available)	\$215.00 - 2 SPANS \$285.00 - 3 SPANS	
LV	LOUVRE VAN (Not currently available)	\$165.00	\$600.00	70' GIRDER BRIDGE SINGLE TRACK (BRASS & TIMBER)	\$650	
CW	CATTLE WAGON (Not currently available)	\$165.00	\$600.00	70' GIRDER BRIDGE DUAL TRACK (BRASS & TIMBER) (Not currently available)	\$850	
RU	WHEAT HOPPER WAGON	\$165.00	\$600.00	5 TONNE GOODS CRANE (WHITE METAL AND BRASS)	\$175	
U	OPEN HOPPER WAGON (Not currently available)	\$160.00	\$600.00	9" WATER COLUMN (Not currently available)	\$90	
S	OPEN WAGON (Not currently available - END OCT)	\$140.00	\$500.00	12" WATER COLUMN	\$125	
PHG	BRAKE VAN (Not currently available)	\$ TBC		WEIGHBRIDGE & HUMPY	\$140	
ICV	INSULATED COVERED WAGON (includes buffers and couplers) (Not currently available - END OCT)	\$210.00		10,000 GALLON CAST IRON WATER TANK (RESIN – NO STAND) LINE SIDE DETAILS	\$35	
BWF	BOGIE FLAT WAGON	\$215.00		POST AND RAIL ASSEMBLY (100MM)	\$12.00 EACH	
VEH	(includes buffers and couplers) (Not currently available)			FETTLERS TOOLS (SET OF 3)	\$5.00 PER SET	
BD	BOGIE FREIGHT WAGON (includes buffers and couplers)	\$215.00	\$730.00	MILEAGE POSTS (SET OF 1/4, 1/2, 3/4 AND 1/1 POSTS)	\$5.00 PER SET	
Union	Unless otherwise noted, kits do not include buffers or couplers			SPEED SIGNS (SET OF 2)	\$5.00 PER SET	
onies				44 GALLON DRUMS (POLYURETHANE)	\$10.00 FOR 4 \$19.00 FOR 8	
				MILK URNS (POLYURETHANE)	\$10.00 FOR 5 \$35.00 FOR 20	

www.waratahmrc.com.au Sales@modelokits.com P.O.Box 379, Ermington, NSW, 1700 Tel: 0404 935 663



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Fine detailed brass & white metal kits 1:43.5 (7mm) O Scale



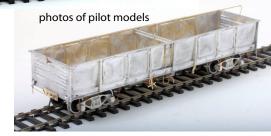
N.S.W.G.R (AD) 60 CLASS BEYER GARRATT



N.S.W.G.R G/GP WAGONS

- G Wagon includes 2BP bogies with wheels & tarp support poles
- GP Wagon includes 2AS bogies with wheels
- Price \$179.00
- Stock Available Now





Our new releases for 2015....

Model O Kits are proud to announce their next kits will be:



N.S.W.G.R FS/BS CARRIAGES

- expected delivery 2015

N.S.W.G.R 36 CLASS BELPAIRE LOCOMOTIVE

- expected delivery 2015



Watch our website for more information soon!

Visit us at www.modelokits.com Telephone: 0404 935 663 email: sales@modelokits.com



	Product	Range	
NSWGR PC-3 Station Building Kit	\$109.00	Timber Level Crossing	\$15.00
NSWGR PC-2 Station Building Kit	\$89.00	Card Level Crossing	\$13.00
NSWGR PC-1Station Building Kit	\$49.00	Timber Platform Fascia kit	\$33.00
NSWGR Single Panel Hut Kit	\$10.00	Concrete Signal Box Kit	\$49.00
NSWGR Two Panel Hut Kit	\$13.00	Ash Timber Buffer Kit	\$19.00
NSWGR Three Panel Hut Kit	\$15.00	Small Concrete Water Tank Kit	\$12.00
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6' Timber Palling Fence Kit	\$18.00	Corrugated Water Tank 2700mm Diameter Kit	\$10.00
Laser Cut Card Windows & Doors	\$17.00	Corrugated Water Tank 3400mm Diameter Kit	\$12.00
Corrugate Sheeting (390mm x 208 mm x 0.25mm)	\$4.00 ea	Platform Seat - Version 1 Kit	\$5.00
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Corrugated Iron Fence Kit	\$12.00	Various O Scale Waterslide Decals \$10.00	- \$12.00
	New Pro	oducts	
Petrol Station	\$89.00	Speaker Boxes - To suit Jaycar AS3030, AS3028 speakers	\$6.00
General Store	\$89.00	C2 Toilet Building	\$38.00
Workshop Building	\$79.00	C2 Toilet with Lamp Room	\$49.00
Weatherboard House Front Only	\$59.00	Shop Front	\$49.00

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O-Aust Kits

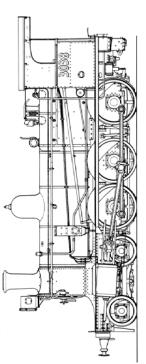
NSWR MHG GOODS BRAKE VAN WITH 2AP OR 2AT BOGIES \$350.00



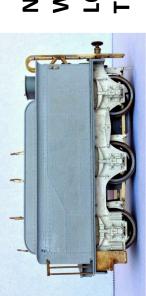
NSWR HCX BRANCHLINE COMPOSITE COACH

\$495.00





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NSWR C30T TENDER LOCO WITH P CLASS TENDER **LOCO + TENDER \$1600 TENDER ONLY \$350.00**