

7th Heaven

Journal of the Aus7 Modellers Group Inc.
No 59

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The Impossible Layout 5
The Central West Railway Company
October Forum and AGM
Forum Photos
Auscision 48 Class
Checking The Constant Curve
Commercial News
Aus7 Group Award

Aus7

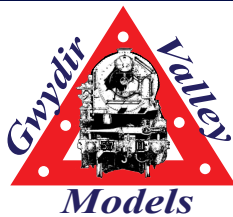
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CONTENTS

- 4 The Impossible Layout - Part 5
- 6 The Central West Railway Company
- 11 October Forum and AGM
- 12 Forum Photos
- 13 Auscision 48 Class - First impressions and DCC
- 16 Checking The Constant Curve
- 17 Commercial News
- 18 Aus7 Group Award

Sorry But

You have probably noticed that this issue is very late. Should have been in your letter box about five weeks ago. Trouble was there was not enough to put in it.

This has been an ongoing situation and has resulted in a decision at the AGM to regard the magazine as being on a "comes out when there is enough material to fill it" basis rather than a regular quarterly publication. This is far from satisfactory but is beyond my control.

The .only people who can do anything about it are you the members. So unless there is more support in the way of submitted articles there won't be the as scheduled January issue either. It will come out when it comes out.

Paul = Editor

Straight Down the Line - Opinion

by Trevor Hodges

Stalwarts

I had the pleasure of handing the 2018 Aus7 Award to Bruce Lovett at our Oct Forum recently. We revived the award a few years ago after a hiatus of a few years because it occurred to the committee that there were people within the group who had put in a great deal of effort over the years to promote the scale, the group or the hobby (or all three at once) who were going unrecognized. Every one of the recipients of the award have been deserving of the accolade but I have a particular fondness for those that are given to the quiet achievers like Bruce, although there are those who know him who will have a quiet chuckle at the word quiet appearing in the same sentence as Bruce's name: he does like a chat. Bruce is well known within our small community. His main contribution has been through his contact and encouragement of a wide range of individuals who might have been customers at Bergs Hobbies over the years or who may have read one of the many articles he has written for 7th Heaven over the years. He's been a long term contributor and influence on many of us and he's well deserving of this recognition.

I'm sure many of us were shocked to hear of the recent illness of another recent recipient of the Aus7 Award, our long time VP and Forum organizer John Parker. John is on the mend and I'm sure we all wish him a speedy recovery, however his poor recent health prevented him from attending the Oct Forum. In addition John has had to step down from his role of VP and from ongoing organisation of the Forums. I'm sure we all wish John a full recovery and thank him for the enormous amount of work and effort he has put into the Aus7 Modellers Group over the years. I'm told his daughter has finally allowed him to have his phone and computer back so he can be contacted for a chat by his many friends. Speedy recovery John, we all miss you.

At this stage there will be no changes to the format or venue of the Forums during 2019 however any changes we feel may be necessary will be discussed by the exec and put up for discussion at the next AGM in 2019, if any changes are in fact considered necessary. If you have any suggestions or questions you should direct these to me during 2018/19. Members should note that a resolution to raise the annual membership fee to \$40 was passed at the most recent AGM starting in the 2019/20 financial year. I'd also like to take this opportunity to welcome Lionel Pascoe as the new VP.

Aus7 Modellers Group Inc
P.O. Box 3404 Asquith NSW 2077
<https://aus7.org/>

President
Trevor Hodges

trevorchodges@gmail.com

Secretary
Chris Lord

chrislord4401@yahoo.com.au

Treasurer
Anthony Furniss

anthonyfurniss@rocketmail.com

Vice President
Lionel Pascoe

lpas5190@bigpond.net.au

7th Heaven Editor
Paul Chisholm

paulchisholm1948@gmail.com

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On The Cover
Two colour schemes on the latest arrival on the RTR locomotive scene from Auscision. Chris Lord has been very quick off the mark to write an article for this issue about the model including DCC installation

RUMOUR HAS IT THAT KRM ARE GOING TO PROVIDE TWO ANDIAN CREW FIGURES MODELLED ON THE COMPANY'S OWNER WITH EACH Z20 KIT PURCHASED

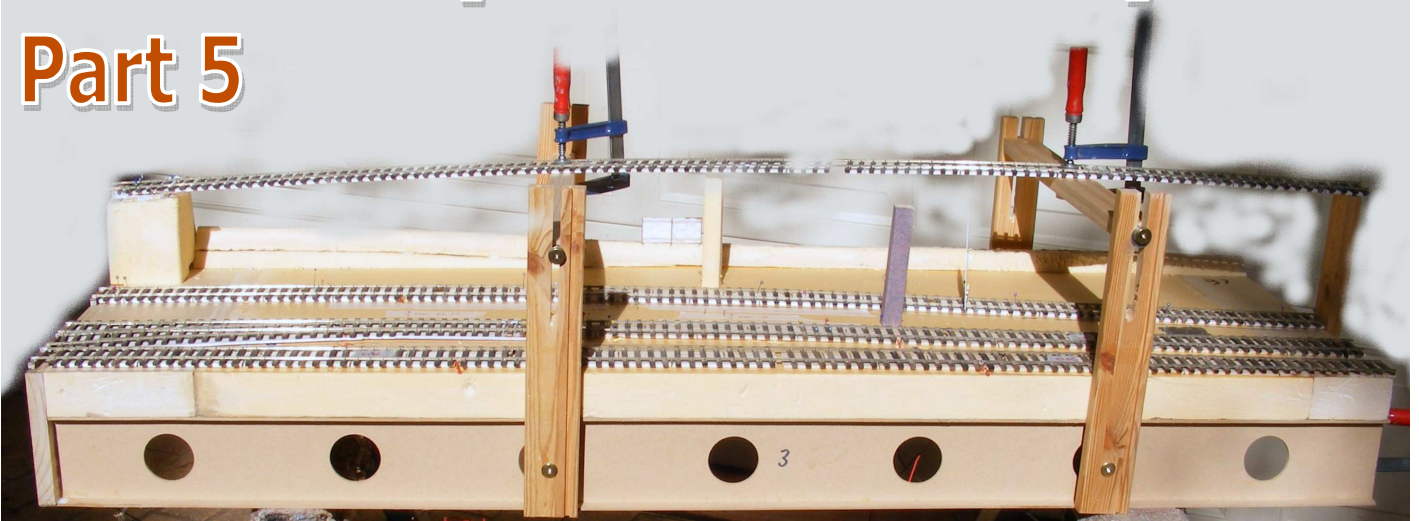


HERE'S A SNEAK PEEK OF WHAT A (Z)20 DRIVEN BY A TEENY WEENY KEIRAN MIGHT LOOK LIKE - THE MANUFACTURER RECOMMENDS THAT THESE FIGURES WILL NOT BE SUITABLE FOR CHILDREN UNDER 12 YEARS OF AGE AS THEY MAY CAUSE NIGHTMARES

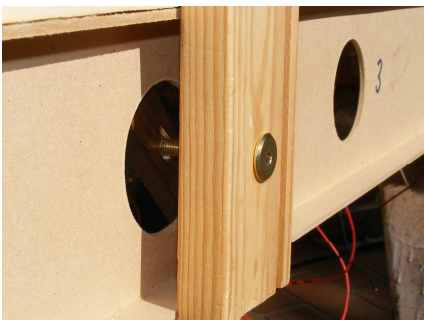
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The 'Impossible' Layout

Part 5

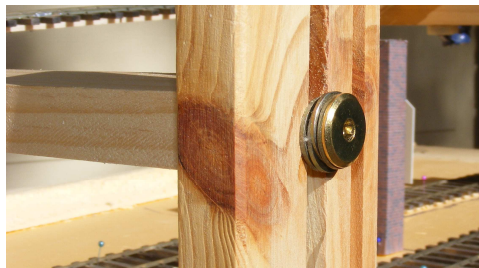


Calculating the exact location and grades of elevated sections of track bring a unique set of problems. Accurate horizontal and vertical dimensions need to be worked out whilst the track is effectively in mid-air. In order to simplify this process temporary scaffolding was installed on module 3 to support the elevated track whilst final decisions were made prior to building and positioning the bridge girder sections. The photographs illustrate the application of the supports which were held in place with clamps constructed from scraps of timber and the same threaded nut inserts and screws used earlier on this layout. Although rather crude this method was effective.



This process is effectively the complete opposite of that carried out earlier which followed the usual practice of preparing the road bed prior to fixing the track in place. The girders and supporting structure, mostly 3D printed, were built to suit the defined position of the elevated track.

I have not been able to find a single photograph or drawing which would give a complete picture of exactly how this section of track was supported. There are howev-



er a number of photographs of varying clarity, taken from a variety of locations which give sufficient information to hopefully produce a reasonably accurate model.

This elevated section was built before the widespread application of welded girders, with most of the metalwork being constructed using steel angle girders and flat bar riveted together; think Sydney Harbour Bridge. This type of girder sometimes known as a lace girder was used widely by the NSWGR for structural applications; they were also used for the frame of the still to be modelled double deck goods shed. First indications are that at least 30 lace girders up to 20 foot in length will be required. This looked like another task for the 3D printer but the design of

this type of riveted girder was likely to be beyond by current 3D drawing skills. This was where Thingiverse came to the rescue. Thingiverse is an enormous repository of 3D printed designs which is continuously growing thanks to sharing efforts of many thousands of designers. A search found a contribution under the title "0-Scale Bridge Components²" which included a lace girder designed to be printed in two parts. I modified the design very slightly and soon had sufficient girder components to make a start on their assembly.

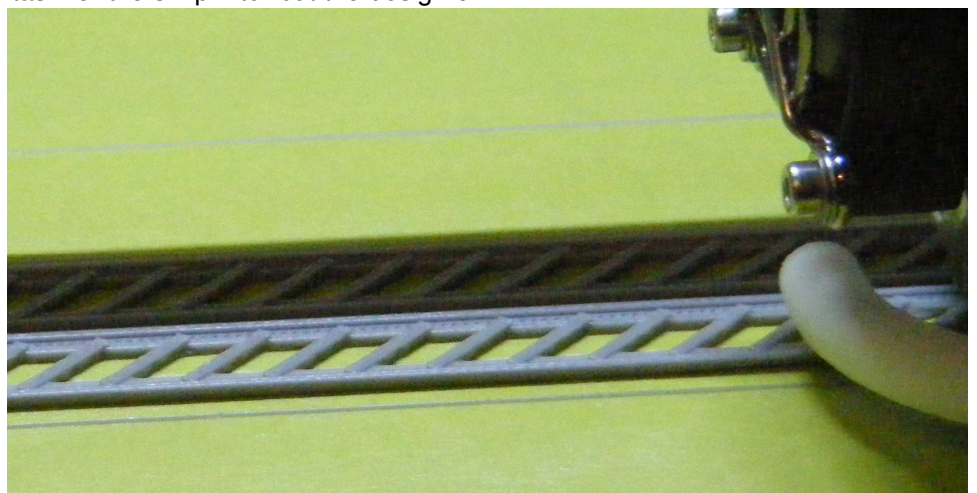
No longer "Impossible"?

I need your help. As this series has continued I guess it can no longer be called "impossible", but if not what should the layout be called, possibly..

"Darling Harbour- a glimpse"

What do you think?

John R B Parker

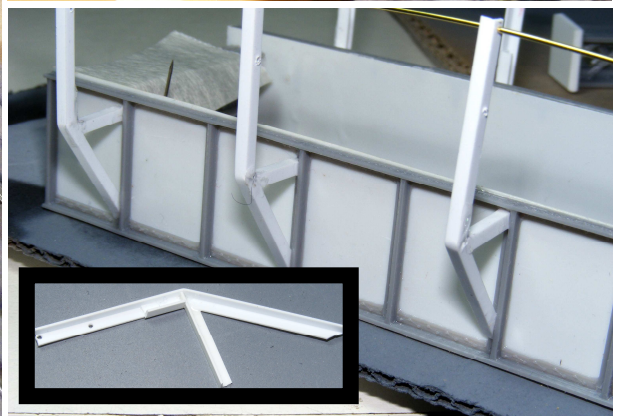
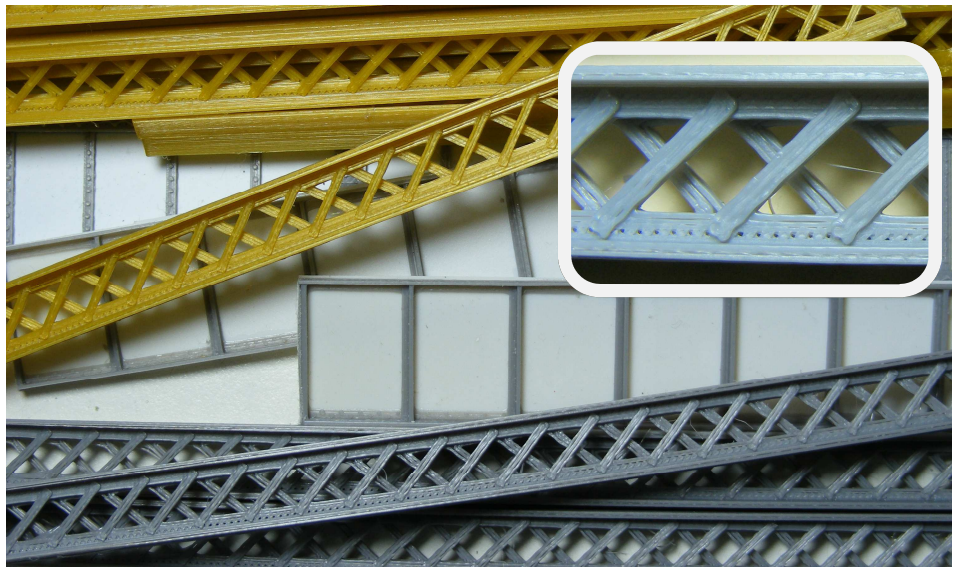


The final lace girders were fabricated by gluing two of the 3D printed girders back to back. The lace girders were subsequently cut to the desired length for the uprights used to support the track and also into two shorter lengths needed for each 20 foot bridge section..

The main bridge girders are a modification of the Plate Girder Bridge³ also available on Thingiverse. The original design was for a complete printed girder with rounded ends. I modified the dimensions slightly to suit my needs, including the "z" dimension. The advantage of this approach resulted in only the riveted angle sections of the girder being printed, these were subsequently glued to 1 mm sheet styrene using cyanoacrylate, "super glue" to produce the final girder. (Normal polystyrene glues and solvents are not effective with PLA printed items.) Finally the rounded portions at both ends were removed to achieve the desired rectangular shape.

This elevated section of track includes walkways on either side, as well as between the rails with handrails similar to those used on turntables. The walkways were made by gluing in place scale 4 x 12 inch timber boards which had previously been weathered using the process described in Part 3 of this series. The 48 handrail posts were fabricated from Evergreen #293 angle. They were glued in place onto the girder panels using the special ultra violet glue pen⁴. This inexpensive glue pen comes complete with an internal battery to power the UV LED which hardens the glue within 5 – 10 seconds. This rapid hardening assists greatly in speeding up what would otherwise be a slow and fiddly process. The joints were subsequently reinforced with "super glue" as the long term security of this ultra violet light hardened glue is unknown. Before any of these assemblies were positioned and glued into their final positions they were painted dark grey (Tamiya F63 German Grey). This was the first use of the airbrush on this layout.

Each bridge section was then glued in place from underneath using acrylic contact adhesive. At this stage the handrail stanchions still require some adjustment to ensure they are upright, the use of "super glue" proved the most effective way to attach each upright to the side of the timber walkways. The final touch was the addition of the handrails which were slid in place into the pre-drilled holes. Pre-painting the handrails proved ineffective so they will be repainted later.





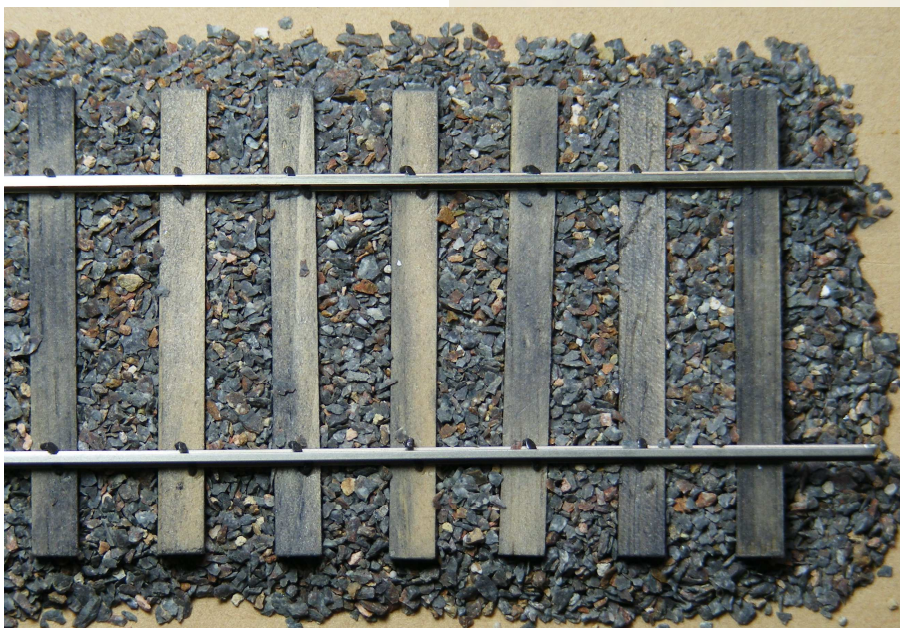
The above photograph indicates the progress to date on the installation of this elevated section of track. There are now sufficient track supports in place to permit the removal of all the temporary scaffolding with the exception of a single supporting foam block at the end. This will be replaced when the girder skeleton inside the small section of the double deck goods shed is modelled. At the moment the shed only exists as a cardboard replica with approximate dimensions.

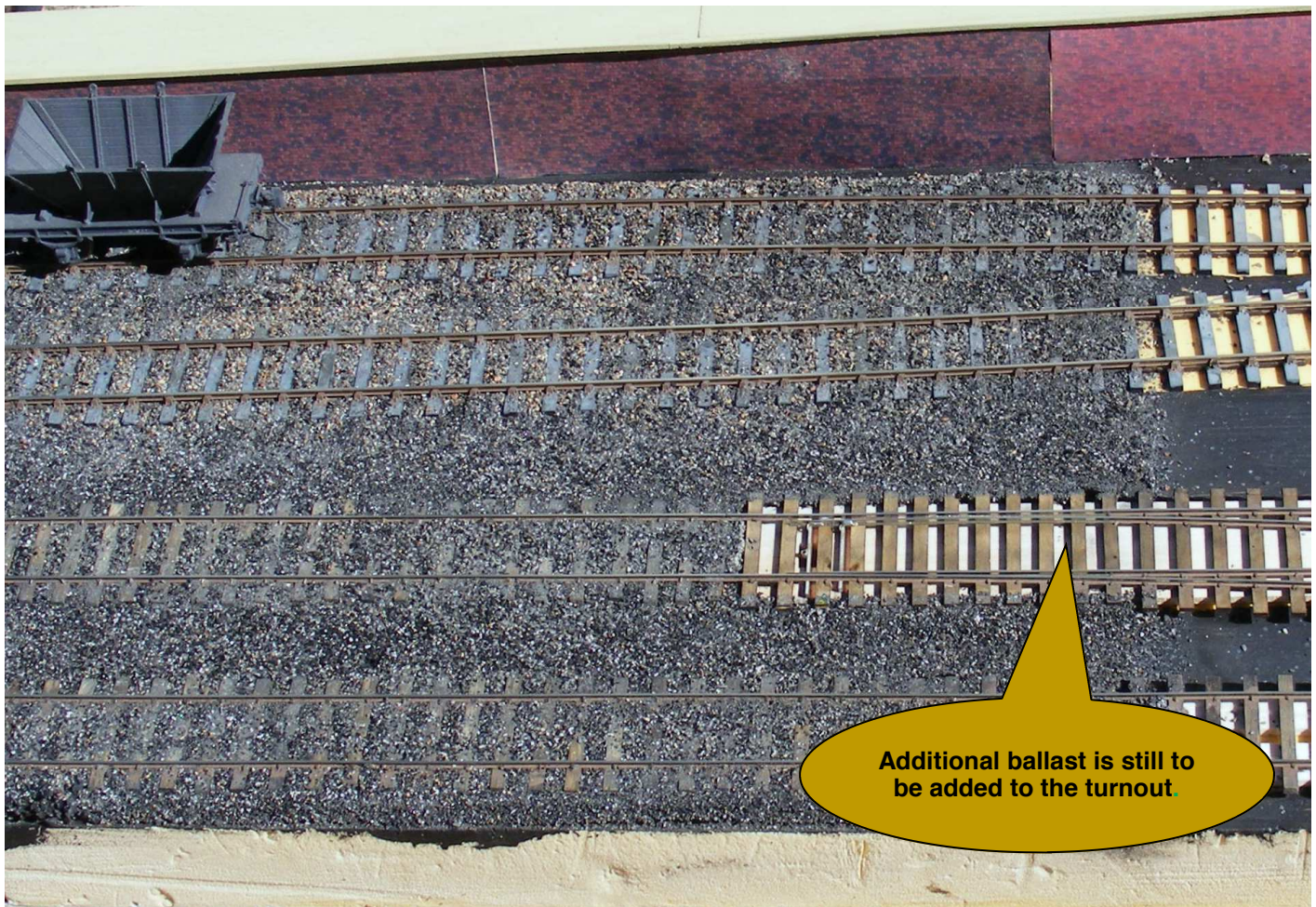
The additional fabricated girders as well as some shown above still in their natural state will require painting before they can be installed. As the weather at the time was not conducive to the use of the airbrush I moved onto another aspect of the layout construction, ground cover and ballasting first on module one, possibly the simplest section of the layout.

I have previously used two quite different methods for installing ballast. Valley Heights used the most common method based around the use of PVA wood glue thinned down with water, approximately 10% glue and 90% water. This works well particularly on a foam subbase which does not acoustically resonate. Unsatisfactory track noise is sometimes a problem on a plywood subbase as the PVA glue hardens fixing the track and ballast rigidly in place. This is obviously different to the prototypes use of track, sleepers and ballast. On earlier HO layouts I used latex glue thinned again with water. This was very effective as although the glue dried completely it always remained flexible and as a result there was a considerable reduction transmitted track noise. Unfortunately it was difficult to apply as the latex glue tends to separate into small lumps when it is applied to the pre moistened ballast. It really is a little too fiddly to be recommended.

Although the use of diluted PVA glue works well there is still a tendency for the glue to disturb the ballast unless you are very careful with the application. I am sure we are all familiar with the usual method. After the dry ballast is applied it is moistened with a spray bottle containing water to which a few drops of detergent has been added. This process tends to temporarily hold the ballast in place prior to applying the diluted glue. Somehow no matter how careful you are with the application of the glue it doesn't always achieve the desired perfect result. There is a need to achieve a balance between applying too much water/glue which causes the ballast to move or insufficient with result that it looks O.K. until you realise, after allowing for 24 to 48 hours for the ballast to dry, that it is not properly glued in place. Maybe I should use PVA glue again but are there any other methods worth considering?

An experiment was carried out using powdered wallpaper paste⁵. After trialing a number of different proportions I eventually settled on a ratio of 1 part powdered glue to 8 parts of dry ballast, measured by volume. The ballast was spread in place in the normal way and the roadbed was then sprayed with the water detergent mix. After the water evaporated and the ballast was completely dry it was noticed that all the ballast had stayed in place with the end results being very satisfactory. The photograph shows the result of the experiment. I did find that the use of the wallpaper glue resulted in a bond that was not as strong that made with PVA glue so far added security I lightly sprayed the previously secured ballast with the usual diluted PVA/water glue mix. I will use this method again particularly when "perfect" roadbed appearance is required; unfortunately that is not a requirement on this layout.





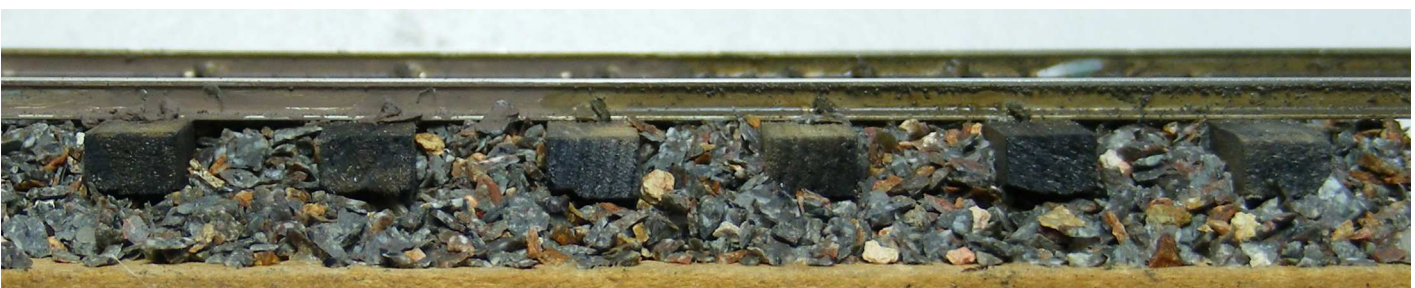
Although all of the wiring still remains to be interconnected I thought it was time to make a start on turning the bare foam base and all that very 'new looking' track into some resemblance of the Darling Harbour goods yard. Normally I would paint the foam surface brown or a similar "earth" colour but this time I chose black as being more suitable as the whole area will ultimately be covered with ash and ballast with just a few hardy weeds struggling to survive here and there. The plastic sleepers on the Peco track were painted a weathered grey to match the hand laid track; no great care is required as ultimately the majority of the sleepers will be partially or completely covered by the ash and ballast. In the past most modellers have used Floquil Rail Brown as their preferred paint choice for achieving that normal weathered and rusted look. I only had ½ bottle that I could use but as Floquil has long since ceased manufacturing a substitute

paint was clearly going to be required. An online search turned up the Floquil Color Chart⁶ from Micro Scale which provides suggestions for Floquil substitutes. Vallejo Green Gold 70.795 #216 is the suggested colour to replace Floquil Rail Brown. The name surprised me but in the hope that it might be correct I ordered a bottle from Melbourne. In the meantime I looked for a suitable match among the Tamiya paints that I have available. XF-72 Brown (JGSDF)⁷ appeared to be a possibility so I brushed a short section of track with both colours to test its effectiveness. The result is shown at the bottom of the page. Tamiya XF-72 was applied to the left hand half of the rail with Floquil Rail Brown on the right. You will have to wait until the next episode to see whether or not I should have waited for the Vallejo paint.

...to be continued .

Where do you get it?

1. Thingiverse
<https://www.thingiverse.com/>
2. O Scale Bridge Components
<https://www.thingiverse.com/thing:2462177>
3. Plate Girder Bridge
<https://www.thingiverse.com/thing:1318589>
4. UV Glue pen
5 Second Quick Fix Pen Plastic UV
Light Liquid Welding Compound Glue
(Various eBay suppliers)
5. Poly 250gram Wallpaper Paste
Bunnings
6. Floquil Color Chart
<https://www.microscale.com/Floquil%20Color%20Chart.pdf>
7. Tamiya XF-72 Brown (JGSDF)
Acrylic paint
Most Hobby shops



The Central West Railway Company

Paul Chisholm

In 1925 The Central West Railway opened. It ran from the NSW town of Canowindra northward to the then NSWGR branch line from Orange to Condobolin, joining it at the locality of Gregra between Molong and Manildra. A more detailed account of the route can be seen in the following extract from the Parliamentary Enabling Act.

Canowindra to Gregra Railway Act 1924 No 54:

This railway commences at a point on the branch line from Canowindra to Eugowra about 1 mile north-westerly from Canowindra Station, and proceeds northerly on the eastern side of Toms Water Hole Creek for about 14 miles to the main road to Orange, which it crosses; thence a north-westerly bearing is taken for about 3 miles to a point about 3 miles east of the village of Toogong; thence a north-easterly bearing is taken for 6 miles, and Bowen Creek is crossed near its confluence with Bourimbla Creek, which is ascended to a point about 2 miles east of the village of Cudal; thence a northerly direction takes the line across Boree and Sandy Creeks near their confluence, and the latter creek is ascended for about 4 miles, and the line ends by a junction with the branch railway from Orange to Condobolin at the eastern end of Gregra Station at 224 miles 65 chains 52 links from Sydney via Orange, being a total distance of 33 miles 70 chains; and is subject to such deviations and modifications as may be considered desirable by the Constructing Authority.

Unlike most of the lines in that part of the state it was built not by the State Government but by a private company formed by local landholders who tired of many years of Government promises and inaction and decided to take matters into their own hands.

The line had limited capital and it was decided that a narrow gauge would provide great savings in construction and equipment costs and would be adequate for the anticipated traffic and no interchange of vehicles with the Government railway was planned. All goods would have to be transhipped.

It also happened that at that time the Victorian Railways narrow gauge lines were in decline and surplus locomotives and rolling stock were being offered for sale. This was a determining factor in gauge selection of 2'6" as it enabled the purchase of three Na Class tank locos and a basic collection of rolling stock to get the line underway. The three locos were renumbered 1, 2 and 3 and some additional items of rolling stock built new to VR plans.

The line never made much of a profit but covered costs for the first twenty years of its existence and met the needs of the locality for which it was constructed. However after WW2 it began to suffer from the encroachment of road transport on the improving roads, much like the Government lines as well, resulting in closure in the mid 1950's.

Today little can be seen to show that the line ever existed. The Government branch line from Cowra closed in 1974 and evidence of the junction at Gregra has been totally obliterated by upgrading of what is now part of the main line to Parkes and beyond to Broken Hill and Perth.

It is not known what became of the locomotives. They were probably scrapped but some of the rolling stock became storage on local farms. So ended the short but fascinating life of the CWR.

Never heard of this little line? That would be because it never existed. All the above is pure fiction. But it might have existed and I have manufactured that story to provide a rational explanation for my diversion into a segment of the hobby that is quite different to the usual 7mm NSWGR prototype that has been my main focus for all of my modelling life.

Now, don't get me wrong. You won't find my 7mm collection on Ebay any time soon and I have a long list of NSWGR projects on the production line but for some time now I have been feeling the need to just try something a little different and particularly a freelance type of situation where I was not constrained by having to work to a particular prototype.

This was kicked along by a couple of things all coming together to steer me in a particular direction. Firstly I had long admired the VR narrow gauge prototype and always thought about doing a couple of mantle

piece type models. Then Haskel models introduced their RTR Na at quite a reasonable price, so after a year or two of thinking about it I bought one, then another and then a third. Fitted with DCC these are quite a nice little loco at a reasonable price.

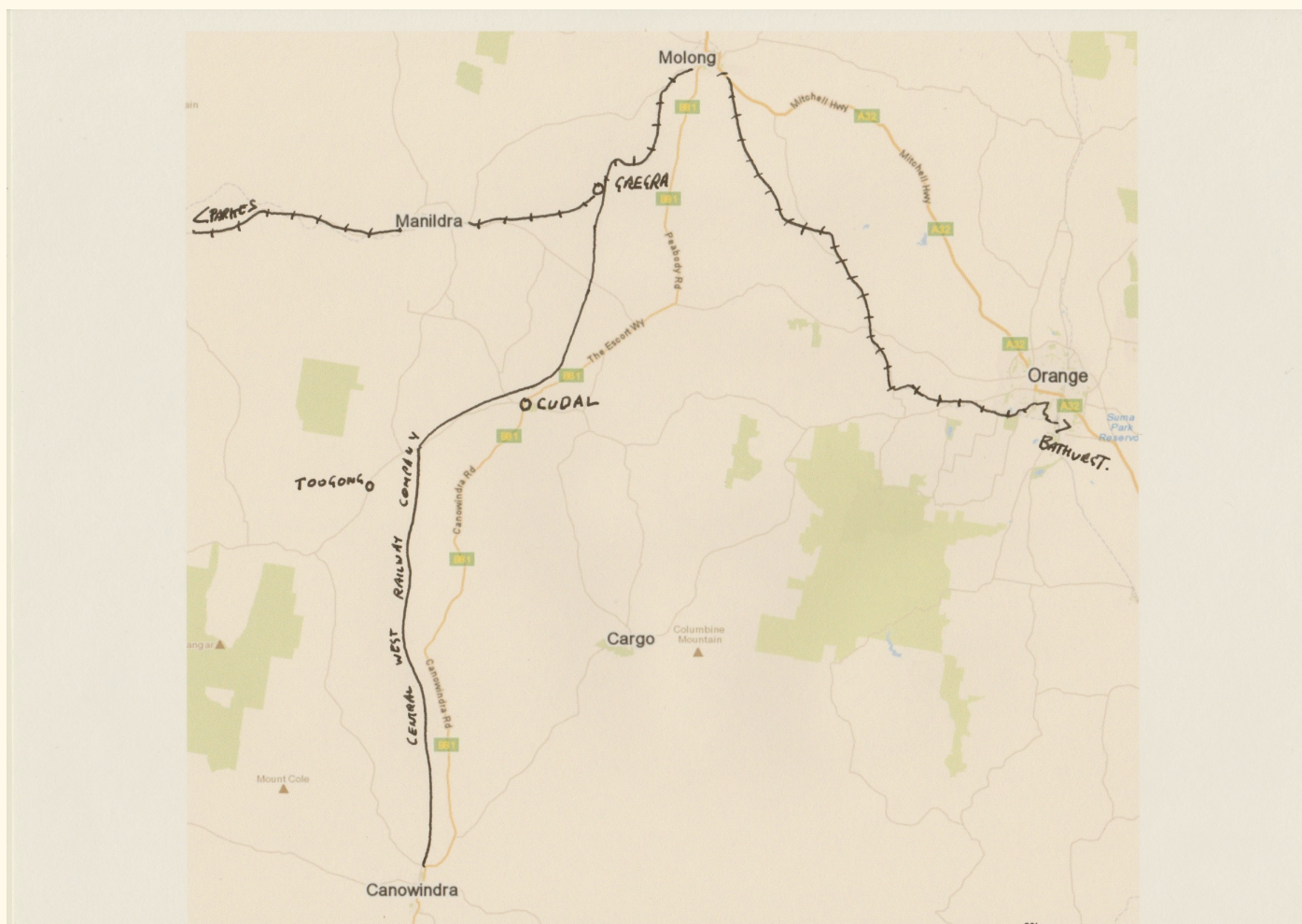
Then I discovered that Ian Lindsay models had a range of VR rolling stock kits, once again at a reasonable price so I had a go at a couple of these and found them lots of fun to build and once again a change from the standard gauge stuff.

I had long admired the Dandenongs based VR narrow gauge layout built by Alan Rocket and his articles in AMRM got frequent readings. Then the book "The Narrow Gauge" by Nick Anchen was published and it gave a new appreciation of the unique character of these lines. And finally my son moved to Melbourne and is living only a few minutes away from the Puffing Billy terminus at Belgrave so there was no excuse needed for regular visits.

I was finally prompted to do something when dissatisfaction with my present small layout Amaroo built to the point where I had basically abandoned it and it was becoming a buried under the usual build up of household storage.

So, what has happened so far. Well not much in the way of a layout. I have the track and have torn up Amaroo to give clean slate bench work. I have acquired the three locos and fitted DCC to them. I have built a half dozen or so items of rolling stock and done plenty of planning and designing of track plans. But lots of NSWGR 7mm things keep cropping up and taking priority, as is only fitting. So who can say how and when this fancy will progress but I thought fellow modellers might appreciate the story and find the concept interesting.

Take a look at the following models and you might agree with me that they have a lot of appeal. Those familiar with NSWGR wagon codes might see a particular pattern emerging!





Not an Na but loco No2



Covered van NCV



Louvre Van NLV



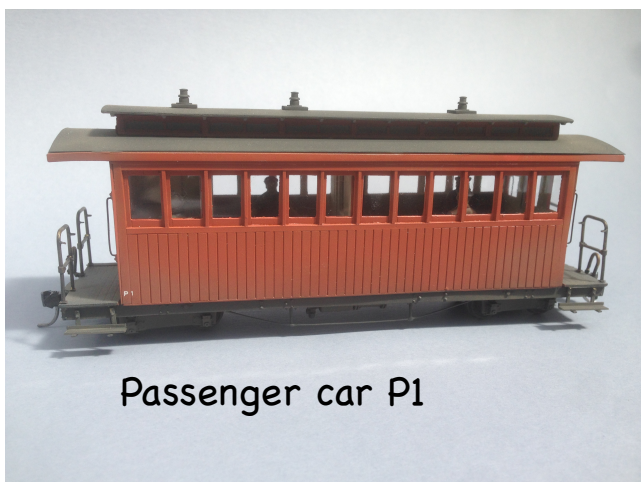
Open wagon NO



Refrigerator car NRC



Stock wagon NCW



Passenger car P1



Guards Van NGV

Aus 7 Modellers Group October 2018 Forum and AGM

What a great day out with interesting presentation's, models on display, lots of goodies to be tempted by, and some business with the Aus7 AGM.

The day started with Trevor Hodges welcoming everyone and letting the gathering know of the small changes with Trevor taking the MC role for this forum due to John Parker having some health issues recently, We all wish John well for a full recovery.

Presentation one (Paul Chisholm) was something slightly different "Becoming Narrow Minded". This covered the slightly different change in direction Paul is taking in planning a new railway still in NSW however in 1/4" scale Narrow Gauge, Paul's research found a location with a proposed line that in this model form will be a cross country connection to several towns between NSWGR metals. An article on this is elsewhere in this issue.

Morning tea and time to check out the traders with lots to tempt the \$\$ to jump out of the wallet with ModelO Kits, Big River and Bergs Hobbies in attendance. (Ref to the Commercial News section for the latest developments). Several new models were on display plus some exciting in development models. As always there was something for everyone from tiny rail spikes to a Union Pacific Big Boy.

Presentation two (Jim Longworth) was another from the outside the permanent way series that Jim covers so well, this time, "Fences of the NSWGR" something we all need to have on our model railways but often forget about or just don't know what to put in place. Jim fenced in all the reasons why and the where of railway fences, including the "Prize Bull" I'll look forward to the notes from this talk.

After lunch it was down to business with the AGM. Reports were given proposed, seconded, then the meeting was informed that John Parker due to his medical issues wouldn't be standing again for VP, before all position's were declared vacant and John Lee took the chair for the election of the committee. Only one position required a new nominee, that of the Vice President. Lionel Pascoe was nominated by Ray Rumble and without any other nominees was elected. All other positions remain with the previous holders. Some general business followed with Trevor outlining some future issues facing Aus7 and the forum including declining membership, increasing costs and lack of contributions for 7th Heaven.

Show and Tell was like a whole presentation itself with attendees finding out about the beautiful models on display and it was great to see the participation but even more would be welcome next time please members. Even your partly completed projects are welcome.

Later in the afternoon a Special award was presented to recognise services and promotion of the Hobby and in particular O scale modelling, This year saw Bruce Lovett receive the honour. With Peter Berg giving the gathering a little insight into Bruce's contribution over a lifetime of modelling. Congratulations Bruce.

Presentation three (Trevor Hodges) Track Laying Options in O scale (the model) in this talk Trevor covered his journey over the years with laying and building track this covered several Mk's of his love affair with Morpeth in O scale to the building of his current evolution with Trevor outlining what has worked for him over the years from Ready to go Peco to the hand built system he is currently using.

Unfortunately I had to leave as the final What's New and the lucky door draw, started. Trevor tells me it all went well, I did see some internet bargain shopping items on the big screen as I organised to leave. Looked interesting.

It was a good day out catching up with friends with some enjoyable presentation's and a few O scale goodies to take home. If you haven't already, check out the video of the days activities on line by visiting the Aus7 web site at the time of writing the video had been on line 2 days and viewed 75 times so seems to be a lot of interest in our little Aus7 forum. It's worth getting along to if you have never been before. Hope to see you in March 2019.

Chris Lord - Secretary



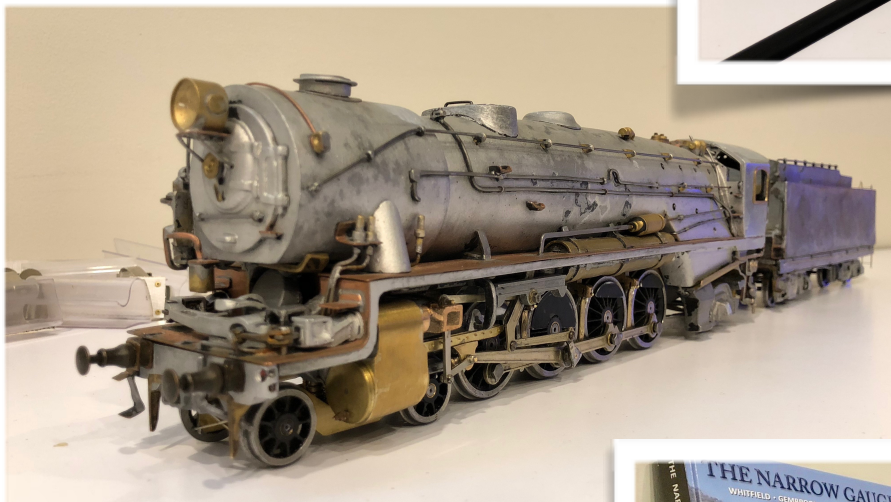
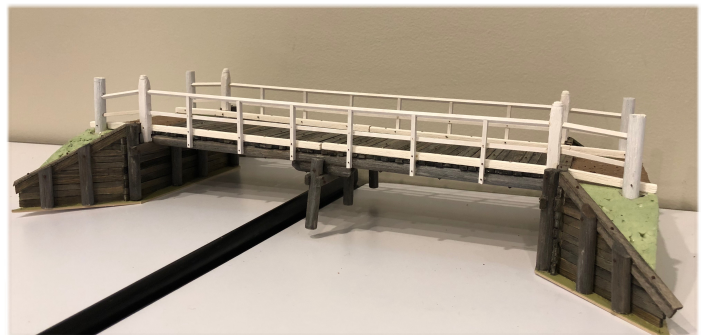
JUST A FEW OF THE INTERESTING ITEMS TO BE SEEN AT THE OCTOBER FORUM

A very early sample of the PHS power van for the RUB set to be produced by Model O Kits. The model will combine brass etch, moulded styrene and 3D printed components to set a new standard for Australian O Scale kits.

This loco displayed by John Lee started as a damaged Gilmaur Models U30C and was rebuilt to a U33C and painted by Sowerby Smith - NRMA Master Model Railroader,



Brendon Griffin brought along his model of the road bridge at Gemalla which was the subject of his article in the last issue. It was great to see the model first hand and a testament to his fine workmanship.



Bob Hendy showed his D57 loco which is a conversion of an O Gauge House model to fine scale. Bob and his friends Chris Sim and Ted Aubrey are converting and upgrading four of these loos and have promised an article on the process for a future issue.

A train made up of the models outlined in Paul's presentation about the fictional Central West Railway Company



Auscision Models 48 Class - First Impressions (including adding DCC+Sound and getting it on the track)

Chris Lord



The latest model in the RTR O scale stable from Auscision has arrived, it has been a very popular model with most versions selling out immediately on release.

The model was offered in seven running numbers with different livery's, two each of Indian Red, Tuscan Reverse, Candy, and the unique for a 48 class Green and Yellow 125 years Anniversary of 4836. Having seen all the livery's on offer I can say they are all very well done.

From opening the box it is clear some extra thought has gone into the packaging and the model is firmly contained. There were no loose parts in the box, a first for me from this manufacturer. Extra foam packaging is positioned behind the running plate hand rails to prevent damage as well.

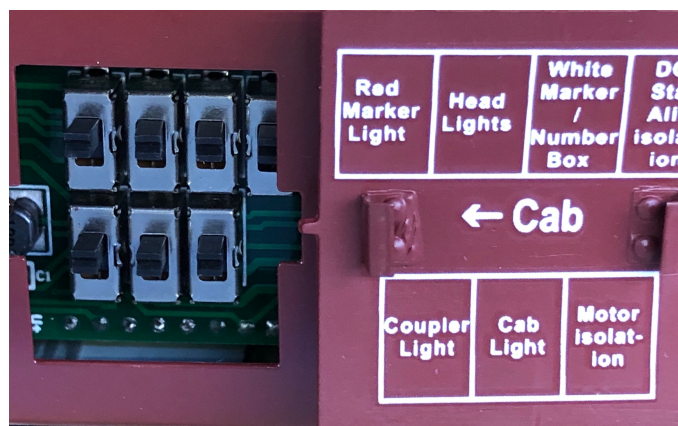
One thing that Auscision don't include with the O scale models is any documentation on the model, unlike the HO models they more commonly produce that have pages of info. This would be very handy when the modeller wants to install DCC or service their model. I will endeavour to help you in this area.

The two samples I have are Indian Red 4821 and the 125 year Anniversary Green 4836. Both have a very pleasing finish and the lining is generally crisp. The only area that has some irregularities is under the three extended air intakes on one side of the long hood where the nature of the detail at this location makes it a hard position to get coverage. However you have to have the model upside down and be looking closely to really notice this. The printing of numbers, crests etc. is also very well applied. The WOW factor of an O scale model is not lost with the 48's smaller size. It looks and feels solid, plus has a good mass to it when handled and with this model the looks aren't just skin deep. There is some good stuff hiding under the hoods.

Running quality straight from the box on the test track with DC power saw both models move off smoothly with very little motor or gear noise and the 16 LED's lights come on as the voltage rises. The motors fitted to the 48 is the same Pitman sourced unit as in the previous 49 and 45 class offerings which is a known brilliant performer with torque to spare. The drive train from the motor is via duel flywheels linking shafts to the same style gear towers of the previous offerings, and all axles are driven via gearboxes linked by bogie mounted metal shafts. Genuine Kadee couplers are fitted to the model.

As is common for models from the company in China who manufacture the 48's for Auscision, the models are wired to run reverse to what is standard O scale practice, so if you run with DC the "Adams family" type of train meeting will be possible.

All the lights on 4836 illuminated nicely however on 4821 several lights didn't illuminate, so I went looking for some switches that may have isolated the lights. Removing the long hood inspection plate near the radiator fan reveals the 48 has seven switches to isolate the lights individually and the motor or Keep Alive if fitted. Once all were turned on 4821 also had a full complement of lights whilst running on DC, these being, head lights and markers white/red, then number box, coupler and cab lights. Note there is an eighth switch on the decoder side of the board which links the cab lights to a function output or if in the other position will be on with track power for a DC model. The switch needs to be switched towards the cab for function operation on DCC models. (see photo of the board.)

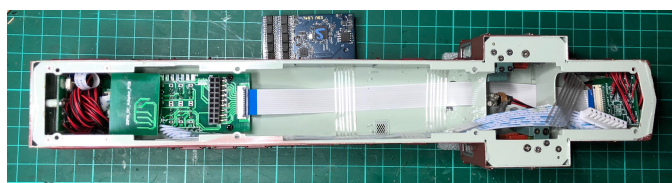


After the initial DC test it was noted that the bogie at the cab end brake cylinders would catch and bind on the chassis detail, especially the speedo drive bracket which became very noticeable on the curve of a point as the bogie travel was restricted causing the model to bind, whilst on curves it would try to climb the outer rail.

The model has a nice low stance. However on measuring the height of the coupler and buffer beam centres it was found to be 2.8mm lower than the Aus7 standard recommendation of 23.9mm for the buffer centre.

It had been stated that the model would be DCC ready and basically it is ready by removing the 20 pin DC adaptor and installing an L series decoder. Again instructions would have been helpful to those less informed regarding the term DCC ready. However it is not sound ready. You will have to install wiring and speakers yourself. This is where the lack of documentation with the model starts to have an effect as you are going in blind with the disassembly, the DCC installation, and the installation of sound. Basic instructions on how to disassemble, install DCC plus sound and fix bogie bind are as follows.

There are eight screws that secured the body to the chassis from underneath, a pair at each end and a pair accessed by moving the bogie slightly left or right if looking between the 2nd and 3rd wheel set along side the chassis frame. Once the screws are removed it is a matter of carefully sliding back the body about 1.5 mm to clear the hand rails on the short hood cab side and then lift the body slightly, This reveals a tether connection to the chassis from the body via a nice JST style plug at the short hood end.



Once the tether is disconnected the body and chassis are much easier to handle. The chassis has a circuit board that has the tether connector, coupler lights, pick-ups and termination of the motor wires located on the short hood end.

Note: Whilst disassembling 4836, the hand rail that connects between the front step hand loop and cab just fell off. Very little solder had been used when it was made, but 4821 seems to have a much better solder join and has not had this occur,

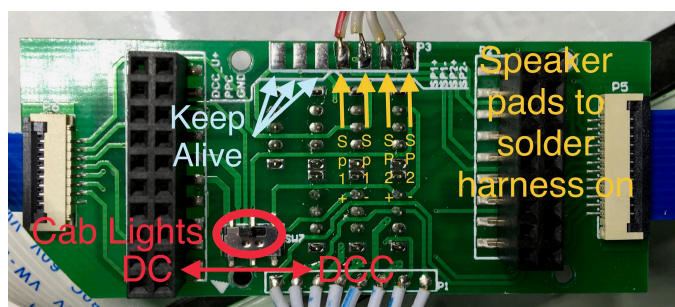
Inside the body are three circuit boards, the main one being located under the radiator fan housing in the long hood. This is the DCC ESU L series adaptor board that has been designed especially for the model and a further two lighting boards at the end of each hood. These are linked to the DCC board via ribbon cables.

When making a decoder choice for sound, either the ESU V4 L or ESU Select L are both a direct plug in for the supplied adaptor board in the model. For my two 48's I installed ESU select L decoders that I already had on hand and was able to download a sound file (that can be found on the ESU web site) specifically for a NSWGR 48 class which was created using sounds recorded from one of the THNSW 48 Class locos running on the Picton loop line. However to upload the file to the decoder you do need the ESU programmer unit and software. If you don't have the ESU unit, Australian Modeller are offering to upload free their 48 sounds to a L series decoder if purchased from them, or you can contact ModelOkits, who can set you up with all the ESU gear needed to program and set up your own ESU decoders.

Non sound installs will be easy, just plug in an ESU L series Decoder to the L series interface, or make a plug to connect to the interface and wire in a decoder of your choice.

For sound installation there are no speakers/enclosures or wiring for speakers fitted in the model as purchased, so this is up to the modellers to do.

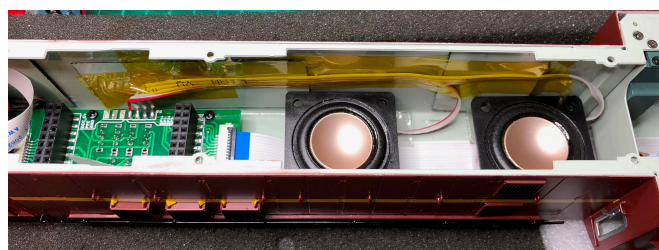
The adapter board has four pads for a speaker harness to be added and three pads for an ESU Keep Alive. These are marked (see photo). The board is secured with four screws and removing the tape that secured the harness inside the hood allowed the board to be lifted into a position to easily solder on a speaker wiring harness.



Measurements confirmed there was space in the top of the long hood for two Jaycar [AS3030](#) speakers. ModelOkits sell an enclosure for these; however it may need some modifications to fit within the available space and unfortunately I did not have one to try.

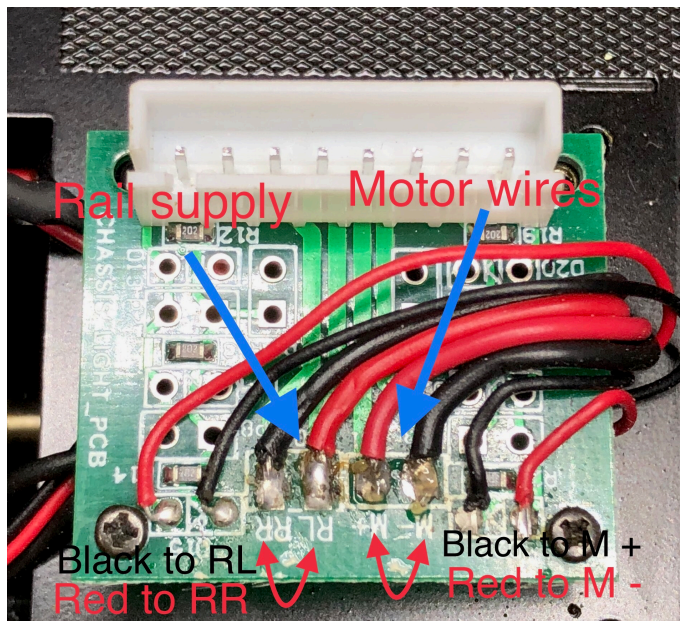
I sealed the back of the two 3030 speakers to make and form its own enclosure and mounted the pair to the top of the hood, I have also ordered an interesting looking alternative speaker to try. May be another article for the future when it arrives, if it works.

If adding a Keep Alive, locate the 3 pads, suitably marked (using the reference within the ESU KA wiring guide) next to the speaker pads and mount the KA, now refit the DCC interface board with the four screws, then install the decoder. (Note: make sure the SW7 micro switch is switched towards the cab so the cab lights can be selected using a decoder function button. (see photo)

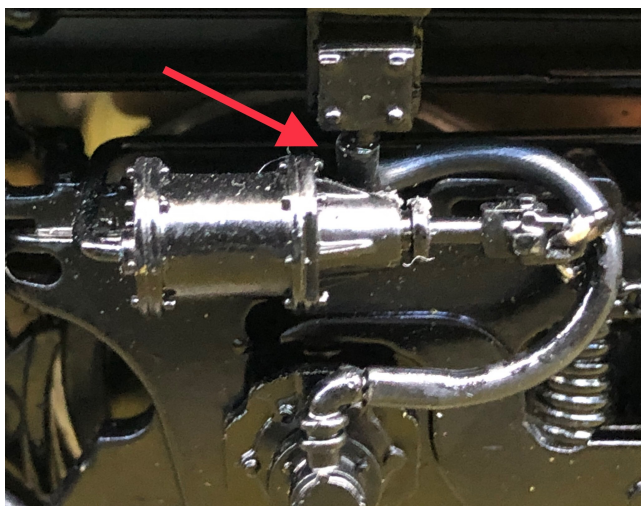


As the model ran in reverse on DC and on a quick DCC test the lights were noted to be operating in reverse to the direction of travel I transposed the M+/M- wires on the chassis circuit board. I guess you could do it in the decoder by adjusting CV29 but, I'd prefer it be right in the loco and as it is a quick unsolder, re solder and the soldering iron was on. Worth doing.

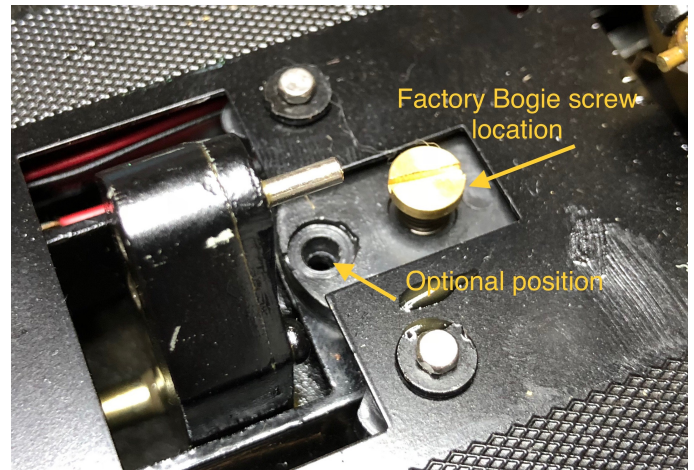
If you only Run DC control swap the RR -RL and it will travel in the correct direction. Interesting thing I did this first for the DC testing and when DCC fitted motor was still in reverse direction to the lights. (see photo)



Attention now turned to the reason for the binding of the leading bogie around curves. The speed drive detail and cable link to the bogie were found to get stuck behind the cylinder . (see photo). The obvious solution was to raise the height of the chassis above the bogies to give clearance and with the chassis being low by 2.8mm, sufficient height was available to clear the detail of the brake cylinder and achieve a close to the correct Aus7 standard buffer height. To do this a spacer was fitted. First remove the motor drive shafts secured to the gear tower shaft by an Allen box grub screw. For the Allen box grub screw I found a grub screw service tool from the "Slot It" brand model slot car range was a perfect fit marked 0.088mm on the packet. Now you can access the bogie mounting screw but note this has a spring to load the bogie mount so care is need not to loosen it as the screw is removed, then install a spacer. In my case I had a pair of fibre washers of 2.4mm that were suitable. Then refit the screw with the spring.



You will notice that the bogie has two mounting positions. One is closer to the lead end of the bogie the other more to the centre. I moved it to the forward position which looks to reduce the front overhang slightly on curves keeping the couplings closer to the track centre line, however it is harder to refit fit the securing screw in this location as it is under the gear tower drive shaft. (Modeller's preference here). Once finished this adjustment gave plenty of clearance and the model will now negotiate curves with ease.



DCC performance is exceptional. The Pitman motor just ticks over and the 48 is barely moving on speed step 1 and is smooth all the way to step 128, However way too fast for me at this point so I changed the setting in the decoder to limit top speed to a suitable speed for my small layouts.

After a bit of tinkering with settings in the decoder, functions / logics etc., all the lights now turn on and off via function buttons etc. the brightness of the LED's can also be adjusted as well to suit. If using the 48 class file from ESU Note it is set up for the HO 48 model, therefore a number of settings and extra functions need to be added to the list. If anyone wants my altered settings I can email the file.

Final thoughts on the model?

Best bits, Portrays the look of the iconic 48 class beautifully, well finished paintwork and lettering, crisp details and DCC ready.

Running qualities / performance are exceptional; pulling power is also very good.

The niggles: No documentation. runs in reverse to standard DC practice. Bogie catches chassis detail. Chassis/body height is low.

Conclusion: A very welcome addition to the RTR stable of NSWGR models and will be right at home on any transition or later era layout.

Checking the Constant Curve - Part 1

By Lionel Pascoe

Well, you know how you spend time agonising over a problem for a few weeks, only to find out that after all that work in modifying it, it ends up becoming a greater problem than when it was the old way? Well read on.

My proposed track extension called for carrying the two tracks, main and loop over the walking isle from my shelf layout to around the corner, so a drop in section was fitted as it was basically a dead end walkway underneath to the roller door and the track was laid. The trains ran reasonably well over the joints after some adjustments and the loop now held longer trains by four bogie wagons. But, I ended up hating it as I had to bend my shoulders and head over to get under. Solution - change it to a lift up.

The drop in section was measured up and held in position by clamps and yes I could change it over to a lift-up as it would not hit the roof. Off to Bunnings I went and selected from the display a suitable pair of hinges as I had been thinking on different methods of lifting. I laid out the hinges and made a mock up to see if they would work and so I installed them, re-laid the track and connected the wires and the train ran over it when I adjusted the track again. But

In the raised position instead of being able to walk past, I now had to turn sideways and bend my head and shoulders again as the section didn't rise straight up, but at an angle. After much thinking and measuring and trying different mock ups, I believed that if I just changed the angle at the joint position this would be the answer I wanted.

After undoing the hinges and cutting and adding pieces of wood and reattaching the screws for the hinges it was ready for the test and yep, it lifted vertically. OK, great, so now to remove some track on the shelf side and add some small track pieces over on the lift-up and connect the wires and let the train's journey out over the new butt joints and around onto the old track on the lift up. I was nervous so a very slow

speed was used and phew! It worked, so after several adjustments again to the track, the engine and then with a few wagons ventured over the new extension and beyond.

Pleased with myself I started to back the train from the other side onto the lift up and then, Houston - we have a problem as the first two wagons coming onto the lift-up leave the track. Some more adjustments are required to tune the train and track together for backwards running now.

After each go over the new section we get a little faster and now another problem or more of a visual issue arises; they shimmy. The four wheelers do a little jiggle/ horizontal shimmy as they now have a little speed going around the curve. I check the alignment and the section is still in the same position both onto the lift-up and when it comes off but, somehow it looks like I have changed the radius of the curve ever so gently when I changed the angle of the join.

I can see the problem in the trains but how do I fix it, if I can? I can push a wagon or two but it's hard to see at slow speed.

So I have developed some little checkers to help observe the problem on any curve or along straight track. I checked if the track was still on the curved centerline I made and it is.

The tool is a piece of brass wire 0.8mm bent to sit on the end of a BWH with a little arm bent back inwards and up out and over the track and as the wagon is pushed around the track, the position of the track under the wire will move as it overhangs the wagon. Remember that as you watch the track go under the little arm that the problem is back towards and under the bogie as it is sitting on the track. The trick - You will have to learn how to use it!

I can see probably a 0.5mm difference as it moves along, but remember that the position is only

accurate over multiple times if being pushed in the same direction. Remember to take it back far enough to allow the wagon to take up the same alignment when being pushed into the curve or along the straight for checking each time.

Why does the shimmy happen? Because the wheel flanges rub on the track head against the side that is pushing against them i.e. the outer rail on a curve and if the bogies axles or wheels flanges are not parallel, then it changes their alignment as the wagon moves around the curve by increasing the rolling resistance as more force is against the flanges. Watch out for track joints as this makes it harder but still doable with the track tools we will talk about later.

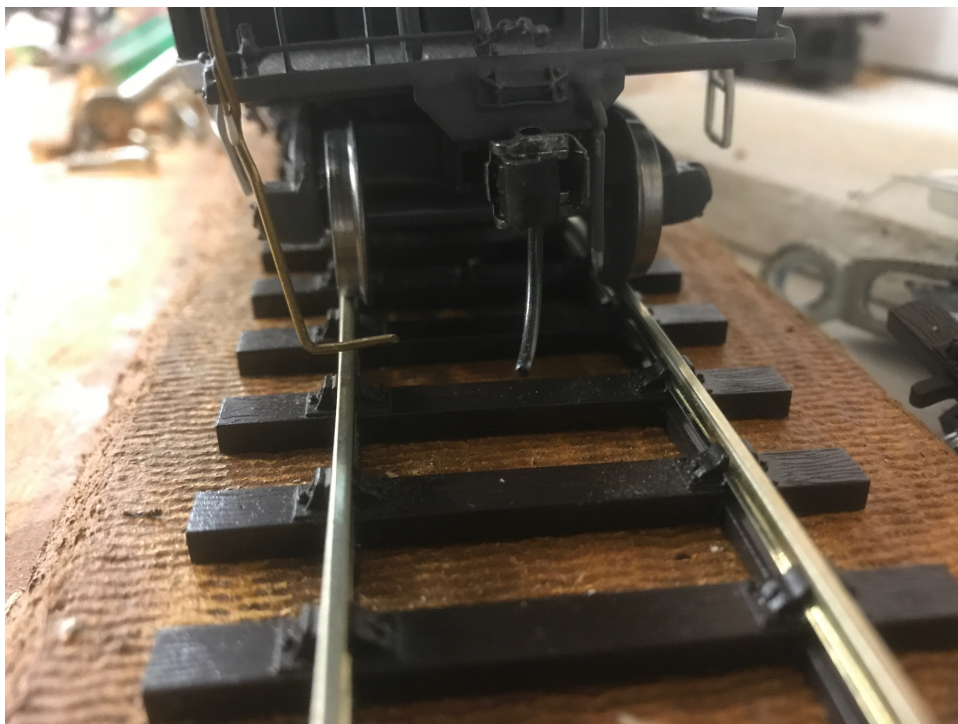
It can help to see a difference in movement by using a bit of white out and draw some thin black vertical lines close together on the brass arm to help us see the difference in movement as it travels around the curve. Also with straight track coming into the curve you can pick up how your curves transition is. Is it in one spot or does it gradually increase and build up into the curve then stay constant or does it change. Note that you can't push the wagon with your hand, you must use a second wagon to push it as your hand will influence the position it takes on moving through the curve. Use the same two wagons. Four wheelers will track differently than bogie rolling stock and sprung vehicles will also be different. Also parallax error will be there if you change the viewing angle when moving around the curve so try and keep the same eye viewing angle.

From these observations you will see changes as the track moves under the arm. Keep pushing several times over the same area, observing if the difference is in one spot or is it over a longer distance. From this you learn which way to pull/ push the track, how far the problem could be around the curve and note is it at a track pin

position or between. Remember that the adjustment spot could be back under or before the wheel/ bogie location or both spots.

Remember that flex track when formed into a radius, depending on the tightness during manufacture of chairs against rail may take up a series of little straights and not be a constant radius so you will need to make the adjustments. Track pins may need to be pulled out and changed or slightly knocked into a different position.

Don't forget that after every adjustment you do you will need to roll the wagon around and check that you didn't change another spot or adjusted too much and don't worry if you can't get it right as in Part 2 of this article I will give us some more tools to check this out, and they do work.



Commercial News

Trevor Hodges

ModelOKits

ModelOKits, PO Box 379, Sydney, NSW, 1700, (02) 97073390, 0404935663, <http://www.modelokits.com> & sales@modelokits.com, shop open most Fridays between 10am to 1pm at Unit 4/61-71 Rookwood Rd Yagoona NSW 2199, have passed on the following news:

- The NSWGR (Z)13 4-4-2T locomotive pilot model will be in Australia and available for viewing at the ModelOKits shop here by the time 7th Heaven is published. Kits available March 2019. RTR to follow progressively.
- TRC kits are now available at \$275 per kit.
- FS and BS kits available March 2019. Price TBA.
- RUB set pilot models should be available for viewing at the March 2019 Forum. The RUB passenger car kit versions that will be available include: SFS, SBS, RS, OBS and PHS. Customers can order individual passenger cars or full RUB passenger car sets (set orders will be at a discount). Kits will only be made to order and not stocked.
- ModelOKits are now stocking Plastruct truss bridge kits and line-side fuel tanks. They are also stocking ESU decoders and a range of ancillary products.

Signals Branch

Signals Branch via its Shapeways shop web site at <https://www.shapeways.com/shops/signalsbranch> and at rpilgrim@bigpond.net.au and by phone at 02 9543 0970 has passed on the news that they have added a "basic" and "large" set of NSWGR station signs to their range. These signs are of the type that go next to and above station doors.

The 'basic' set consists of: Station Master, Booking Office, Parcels Office, Waiting Room, Ladies Toilet, Ladies, Gentlemen & Men.

The large set includes these signs in addition to the following: Office, Telegraph, District Supt Office, Staff Meal Room, Parcels, General Waiting Room, Waiting Room Tickets, Ladies Rest Room, Ladies Room, Ladies Room & Women.

Aus7 Modellers Group Award

At the recent Forum long standing member of the Aus7 Modellers Group, Bruce Lovett was the recipient of the 2018 Aus7 Modellers Group Award. The award is given to persons who the committee feel are deserving of recognition for their contribution to O scale modelling and to the hobby more broadly. To outline Bruce's extensive achievements after a lifetime in the hobby would take quite some time so what follows is just a short summary of Bruce's contribution to O scale and Aus7 in general and written by someone who knows him well. (Ed.)

Bruce's love for O scale and the Forum can best be illustrated by a conversation he and I had the day before the October, 2018 Forum when he told me he had to start a course of antibiotics, but his illness wouldn't deter him from attending the Forum nor sharing our stand, plus helping me throughout the day. This is love and dedication to O scale.

As I have been sick for the past six months Bruce encouraged me to be there and even offered to help prepare and pack the Berg's Hobbies stock for that Forum.

Prior to the start of the Aus7 Forums, Bruce and fellow O scale modeller the late Jack MacMicking organised three workshops which were called The O Gauge Modellers Workshop, the first one at Epping, two at Thornleigh and one at Mortdale. Bruce's attention to detail makes him a good organiser and taskmaster. It could be said, that without these workshops the Aus 7 group may not have started, albeit Aus 7 was started by a group from the original O Gauge Workshops.

Bruce and I have together participated From Chatswood, Liverpool, Hurstville Forum. We were a good team. I would show at the exhibition and Bruce would exhibition Bruce was in charge and I well then and still does today.

Bruce has been an integral part of my also involved with my late father's Prototype HO Scale brass locos many plans, photos and knowledge of the decided to manufacture. The 18, 41 and tested on Bruce's layout with very Bruce, especially the 44 class, where wheelsets. This is why we call him "the pedantic old bastard", now modified to "the pedantic bastard"; "old" now being removed!



in many exhibitions both HO and O scale. and Petersham and now the Aus 7 suggest to Bruce what I wanted to say or put it together especially signage. At the would be his apprentice. It worked very

R&D team, especially O scale. He was venture into manufacturing N.S.W.G.R. years ago. I can count on Bruce for particular vehicles or locos we had 44 class pilot model locos were all comprehensive test reports supplied by measurements were taken on all

Although we only produced 14 wagons, Bruce again was involved in the R&D, testing, reports and critiques of the LCH coal wagon.

When Peter Krause started producing 7 mm Scale NSWGR prototype kits, it was Bruce who provided him with the plans, photos and data and more importantly Bruce vetted the directions, tested the kits for accuracy and the performance of the final sample mode. Moreover, Bruce suggested to Peter that he sell his O-Aust Kits through Berg's Hobbies. So started a new era in 7 mm scale NSW prototype modelling and as they say, the rest is history.

Bruce is very competent with hand skills and perhaps what he learnt at school in technical drawing, metal and wood working, plus the influence of his father, made the man. His father was an electrical engineer, thus Bruce was surrounded by tools and machines. His attention to detail or what we call "pedanticness" has help him throughout his life both during his working career and his hobby.

In his love for the hobby and willingness to help people' Bruce has held elected positions in the Australian Model Railway Assn. and the National Model Railroad Assn. Australasian Region.

Before he gets too old, Bruce is determined to complete his layout. Therefore, he decided to reduce his extra commitments to concentrate his time in finishing his layout. As I am his adopted son, more or less, each time I visit his home, Bruce will explain the latest developments of his layout; either new trackwork or proposed new trackwork, new controllers, structures and scenery. The layout was featured in a clinic that Bruce gave at a Forum three years ago. I think this came as a surprise to the attendees as Bruce's layout is based on the S.P.& S. an American railroad but he has always been known as a strong supporter and modeller of the N.S.W. Prototype.

I owe a very big thank you to Bruce for his support and patience with me as we journeyed through life and on the track to producing models, to support in exhibitions, to fatherly advice, and a close and enduring friendship.

I wish Bruce good health for the rest of his life.

Peter Berg

7th November 2018.

**COMING
SOON**

**ModelOkits are pleased to announce the production of the
NSWGR Z13 Class Tank Locomotive**

In fine scale 7mm kits and Batch Build Ready-to-run by DJH.

- **RTR locomotives** are fully built/running/tested, Includes number plates, decals, standard paint (black), working lights, 8 pin DCC interface (plug-in).
- **Detail includes:** slow running, real coal, detailed back head. Specific paint requests may/will incur additional charges. - **Minimum radius:** 6'

Delivery timings: Pilot Model here December 2018

Kits Available - February/March 2019

RTR to commence delivery March/April 2019

Kit Price \$1500

RTR Price \$2750

- Order forms available from our website or call us to order over the phone or we can post/email you an order form.



**NOW
AVAILABLE**

ModelOkits are pleased to announce the production of the

**NSWGR D59 Class
Locomotives**

In fine scale 7mm kits and
Batch Build Ready-to-run by DJH.



Kits and RTR loco available in either Oil Burning or Coal Burning formats.

- **RTR locomotives** are fully built/running/tested, Includes numbers, decals, standard paint (black), working lights, DCC interface (plug-in).
- **Detail includes:** slow running, real coal, detailed back head. Specific paint requests may/will incur additional charges. - **Minimum radius:** 6'

Kit Price \$1795

RTR Price \$3700

- Order forms available from our website or call us to order over the phone or we can post/email you an order form.

**NOW
AVAILABLE**

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



Photos of pilot model
See website for more photos!



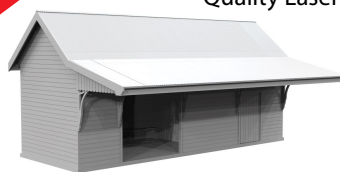
**Limited Extra Stock
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Kit builds available for \$3700 (including kit)

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N.S.W.G.R A1 & A2 Station Kits

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Fine Scale 1:43.5 (7mm) O Scale kits



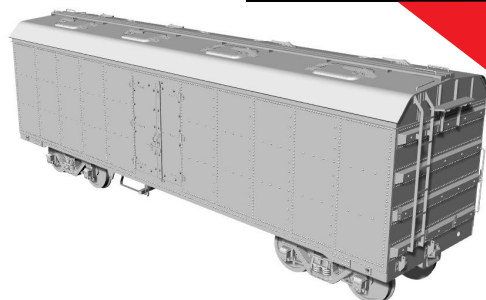
"TRC" WAGON KIT

Kit Includes:

- Etch Brass sides/Roof/detail components.
- Laser cut acrylic chassis,
- White metal bogies,
- 3D printed ends and detail components.

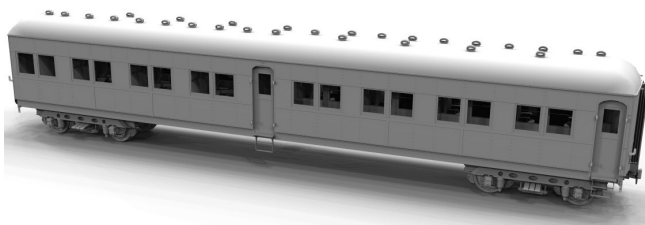
Available NOW!

Price: \$275.00 per kit.



AVAILABLE NOW

NSWGR FS & BS CARRIAGE KITS



COMING SOON

Kits Include:

- Etch Brass sides & detail components
- Laser cut acrylic chassis
- Single piece styrene roof
- 3D printed ends, bogies and detail components

Available End of March 2019

Price: \$425.00 each.



COMING SOON

NSWGR RUB CARS

Available in individual passenger cars or sets
Pilot models available for viewing end of March 2019
Kits available: SFS, SBS, OFS/OBS, RS, & PHS

Available by order only
Expected June Qtr 2019.
(Prices TBA)



COMING SOON

ModelOKits are pleased to announce

We have taken over the On30/On3 and O Scale product ranges from "The Railcar" following the announcement by Paul and Herna Ward that they are closing. We are also stocking a number of ranges carried by the Railcar that will cover all scales including:

Evergreen Plastics, K&S Metals, Mt Albert Lumber, Clover House, Micro Fasteners

AVAILABLE NOW



- Loksound V4 decoders \$165
- Loksound L V4 decoders \$230
- Other ESU accessories available
- Lokprogrammer, decoder testers, cabling, Powerpack (stay alive).

British O Scale RTR



Dapol Now in Stock



Heljan Now in Stock



Minerva Now in Stock

We are now stocking in our Yagoona showroom a range of modelling products including:

- Peco O Scale Track and Accessories
- Micro Engineer Track and Accessories
- Testors & Tamiya paints, weathering products and materials
- MIG Paints and weathering products
- Slaters Wheels, parts and Accessories.
- Xuron Tools
- Slaters Plastikard sheet and strip
- K&S Metal
- Evergreen plastic profiles
- Zap-a-gap glues
- Miniatour Scenery Materials
- Mount Albert lumber
- Tortoise Switch Motors
- Prosser tools, Jigs and rolling roads
- Range of Tools
- Noch and Faller Scenery Material
- Badger Airbrushes
- Woodlands Scenery Materials
- Kadee Couplers

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Visit our new website & online store at www.modelokits.com Telephone: 0404 935 663 Email: sales@modelokits.com
Now incorporating the full range of Waratah MRC, O-Aust Kits & Model O Kits products