

7th Heaven

Journal of the Aus7 Modellers Group Inc.
No 44

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Building 1919 - Century Models 19 Class Locomotive
A Problem Solved
Auscision NSWGR 49 Class Conversion
Something Almost Completely Different
Commercial News



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All the latest from our advertisers and suppliers

A huge thank you to members who responded to the last on line call for more articles. Enough arrived to fill this issue and part of the next but more often than not the article file is empty. Please think about documenting and photographing your modelling projects and sharing them with other members via the magazine.

Paul

Straight Down the Line - Opinion

by Trevor Hodges

The Forum Heads North

I attended my first O-Gauge Modellers Workshop at Thornleigh, Sydney in about 2000 or 2001. The workshops were organised by a small group of Sydney modellers who felt that there needed to be a regular gathering for people who were interested in the scale. Not all of the people involved in organising these events were O-Gauge modellers; they just felt that O-Gauge modellers should have their own event to help promote the scale and modelling in general.

The workshops ceased sometime in 2003 and Nick Sheridan took on organising the O-scale Forums at North Sydney Leagues Club soon after. These events focussed more attention on scale modelling, especially of the NSWRR, however the spirit of striving to promote O-scale in general continued with Nick organising talks from a broad range of speakers, not exclusively those modelling the NSWRR or working in O-scale. If my memory serves me correctly the Aus7 Modellers Group took on organising the Forums about 2006 or 2007 and have run them ever since.

At one of the Forums organised by Nick I asked him why he chose to run them at the North Sydney Leagues Club. I don't think he would mind me sharing with you what he said in that conversation. He said that his main motivation in holding them at the club was that he was lazy: the club was around the corner from his home at the time, having a bistro on the premises overcame the problem of how to feed approximately sixty people at lunch time and the venue was relatively cheap because clubs often saw providing such facilities at a modest cost as a way of supporting the community. After making contact with a list of prospective speakers, providing details to the traders and doing some basic promotion of the event he suggested that all he had to do was turn up on the day and collect the entry fee at the door. The formula worked and the Aus7 Modellers Group has kept the pattern pretty much the same in the years since it has run the event under a number of different organisers.

I can't speak for others who have attended but I've met most of my O-scale modelling friends at the North Sydney Forums or their precursors. The formula really does work and I've always found that attending is a great way of recharging the batteries and generating some enthusiasm for getting on with some new projects. It's also a way to test out an idea or pick up something from one of the traders. Because we know the formula works the executive have decided to take a small risk and try running an inaugural Forum in Brisbane in 2015. At this early stage we have no way of knowing whether this Brisbane event will attract anyone through the door, but we feel it's worth the effort to test the waters. If you do happen to attend and you've been to a Sydney Forum in the past the format will be very familiar: a licensed club as a venue, a 9am start, traders report, three or four talks throughout the day and an open forum at the end. Further details can be found in this issue of 7th Heaven but if you're in Brisbane on the 11th of July, 2015, think about attending. Help us show that the formula works north of the border too.

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On The Cover

John Parker comes to the aid of those of us puzzling about how to cram sound and lights into the Auscision 49 class. Trevor's model on the cover demonstrates the result and John's article starting on page 9 shows how it can be done.

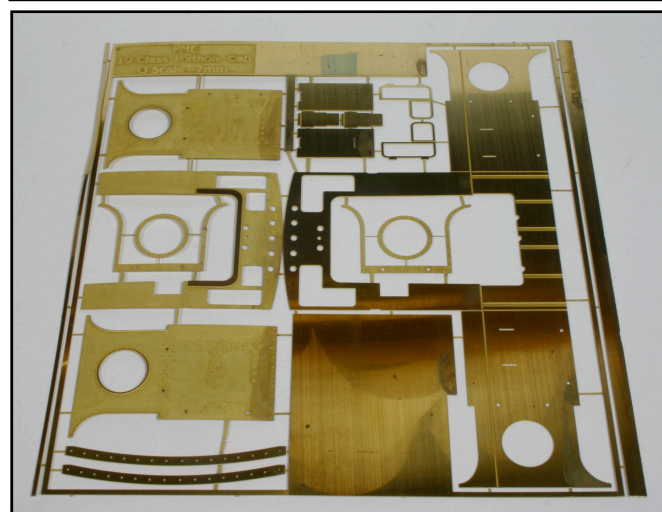
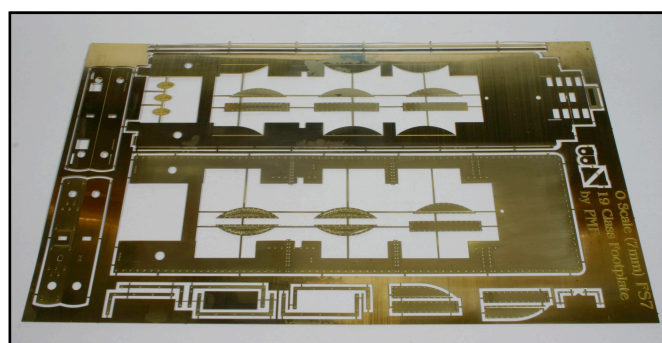


Introduction

The reasons I started modelling the NSW in 1:43.5 are many and varied but one factor that drew me to the scale is quite clear in my memory: I had seen examples of the Century Models (Z)19 class locomotive and can remember thinking to myself “I would really like one of those”. I funded the purchase of a (Z)19 kit by signing up to be a HSC marker which involved turning up at a marking centre each afternoon after work and on three consecutive weekends and laboriously reading thousands of English papers over two gruelling weeks. When I received the money from the marking I was especially gratified to be able to order the kit because I knew I’d really earned the money to pay for it!

As is my usual practice I stored the kit and it remained unbuilt over the next few years while I moved house a couple of times and purchased various upgrade items, a Tsunami DCC sound decoder and various electronic bits and pieces that I knew I wanted to incorporate into the built model. One of the upgrades I purchased for my 19 was a set of PSM brass etchings (Photos 1 & 2) which provided a set of high quality etches to replace the chassis, footplate and cab. As I’d never built a Century (Z)19 up to that point I wasn’t familiar with the way the various components and the materials they were manufactured from went together but having listened to David Peterson of PSM at an Aus7 Forum I allowed myself to be convinced that this was a necessary upgrade. While PSM no longer trades I understand that David can still supply the etches to those who might be interested through David Peterson Modelling Services.

Now I don’t claim to be any sort of expert when it comes to the way a prototype steam locomotive works: I’m not really very interested in the real thing and I’m too young to remember them in revenue service. However at some point in this “kit storage phase” I must have become aware that the 19 class had “inside motion”: for those of



you as gormless as me that means that all the steamy bits and piston thing-a-me-bobs are between the frames, not hanging on the outside where they are in plain view. Several years ago we made the fateful decision to hold the Aus7 AGM at the Thirlmere railway museum where they have an example of the real thing in the form of 1905. It was plain from even a cursory comparison between the model version and the hundreds of photos I took of 1905 that there was something lacking downstairs on the model. When you

look between the frames of a real locomotive with inside motion it's crammed to the gunwales with mechanical "stuff". By comparison the 7mm versions I'd seen have lots of daylight showing. I packed this knowledge away in the back of my brain in the "vaguely disquieting but probably better to be ignored" pigeon hole.

At a Forum some time later I got into another conversation with David Peterson and I challenged him about this "inside motion" phenomenon – because obviously he was personally responsible for such locomotives being in possession of such gear and my complete lack of knowledge of same - and he made the fateful statement that "you could never fit a representation of working inside motion between the frames of a Fine-scale locomotive". Well, talk about a red rag to a bull! At that stage I had no idea when I was likely to build my 19 or how I was going to do it but I was absolutely certain of one thing: when I finally did get around to building it, by hook or by crook, it was going to be built to FS standards and it was most definitely going to have a full set of working inside motion or I'd die in the attempt! Oh fateful words!

The Century Models (Z)19

Let me start by saying that it must be possible to build the Century Models (now owned by O-Aust) 7mm scale kit of the NSW (Z)19 straight out of the box: I know this because I've seen numerous examples of this kit built without the addition of a single third party component and they all seem to be fine models. However in a past life I must have been a penitent Christian with penchant for hair shirts and self-flagellation because by deciding to use the PSM etches and secondly, by convincing myself that I wanted to incorporate a full set of working inside motion - in a FS model no less where the frames are approximately 1mm closer together than they might be if the model was built to S7 standards - I was essentially setting myself a task that would see me discard something like 50% of the kit's supplied components and essentially redesign and rebuild the Laurie Griffin Miniatures inside motion kit I purchased from the UK. Squeezing the inside motion between the FS frames took approximately the same amount of time as building the rest of the kit combined and whether the locomotive is sitting still or moving down the track, to be brutally frank, you can't even see the motion! So was it worth it? You bet your life it was! I loved every minute of constructing 1919 and while it's difficult to see that it has full working inside motion (at least until I point it out to the casual observer) I know it's there and that's all that really matters.

After I moved into my present home I came to the conclusion that I really should do something about building a steam locomotive. The contenders were a scratch-built 20 class, a 50 (from a Century Models Kit) or the 19. I can't recall exactly why I settled upon building the 19 but it may have had something to do with the fact that the kit for this locomotive was the first I had ever purchased in 7mm and was thus the oldest one sitting unbuilt in my cupboard. Another contributing factor may have been that a couple of years prior to this I'd managed to pick up a second 19 class kit with a six wheel tender from eBay. As I now had two unbuilt 19s sitting in the cupboard perhaps I thought building one of them was a sound choice.

I might start by stating that I don't plan on repeating the instructions and giving a blow by blow description of how I built the locomotive. Rather I'll write about where I departed from the instructions and provide an insight where appropriate as to why I did so. This won't necessarily save space because, especially with the chassis which will form part two of this three part series, I departed from the instructions by a wide margin. To put this construction into some sort of context this is the first 1:43.5 steam locomotive I have built however prior to changing to O-scale I built something like a dozen HO steam locomotives and these would be familiar to many of you reading this mostly being from DJH and Lloyd Sawyer's range. I would suggest that anyone who has assembled a couple of HO DJH steam locomotive kits should have no real difficulty assembling a (Z)19 class kit. However I need to be clear that I have particular preferences and prejudices when it comes to steam locomotive kit construction. I will make these clear as I describe what I did however it would pay to keep in mind that quite a few of these kits have been successfully built without departing from the instructions one iota.

If you've previously built a few DJH kits then you might already have most of the tools you will need to build a 7mm scale locomotive kit. However it might be worthwhile detailing some of the tools that aren't what I would describe as "standard" which I find help considerably with construction. I've purchased most of my specialist modelling tools either from Lloyd Sawyer or more recently from Gwydir Valley Models.

Taper broaches - Perhaps the most useful tool that immediately springs to mind is a couple of sets of taper broaches. I find these small reaming tools that allow the modeller to gently open out small holes to be invaluable. A yellow and a red set are probably more than sufficient for our needs and while they may appear to be a bit pricey they really are worth the outlay.

A riveting tool – I own a NWSL riveter which I find very useful on occasion including this project. There are a number of different types of riveter available but one like the NWSL variety which has an indexed table is well worth owning.

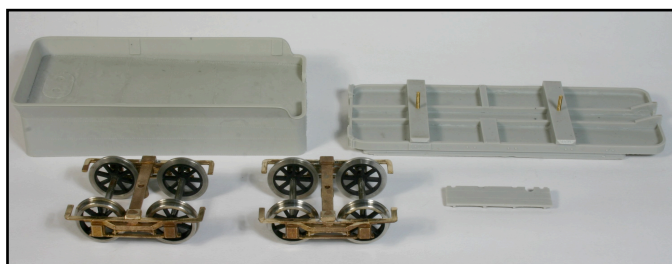
A chassis set up jig – A steam locomotive can be built with a rigid chassis straight out of the box for those who wish to do so and such chassis can be made to run reliably. However I have a particular prejudice about this subject and I build my chassis with either sprung horn-blocks or compensated. If you plan to do the same you really do need a chassis or alignment jig of some type. A set of simple axle alignment jigs such as those sold by companies such as Metalsmith (part #AAT0/3) <http://www.metalsmith.co.uk> are more than adequate or you can go for the Rolls Royce option and get yourself a tool such as the *Master Chassis* from Hobby Holidays <http://www.hobbyholidays.co.uk/> or the Chassis2 Pro from Avonside Works www.avonsideworks.com.

Making A Start – The Tender

At one point I had a vague idea that I would like to have a go at building a layout of the Tumut to Batlow line in southern NSW. The types of (Z)19s that ran on this line had Baldwin tenders to allow them to negotiate the tight

curves as they made their way up the steep grades. While I had a choice to build a 19 with either a 6 wheeled or a Baldwin tender, my vague hankering for the Tumut branch was the reason I started with this version. I built my Baldwin tender in a very similar manner to the way it comes out of the box, however I did make some changes and it is these I will describe.

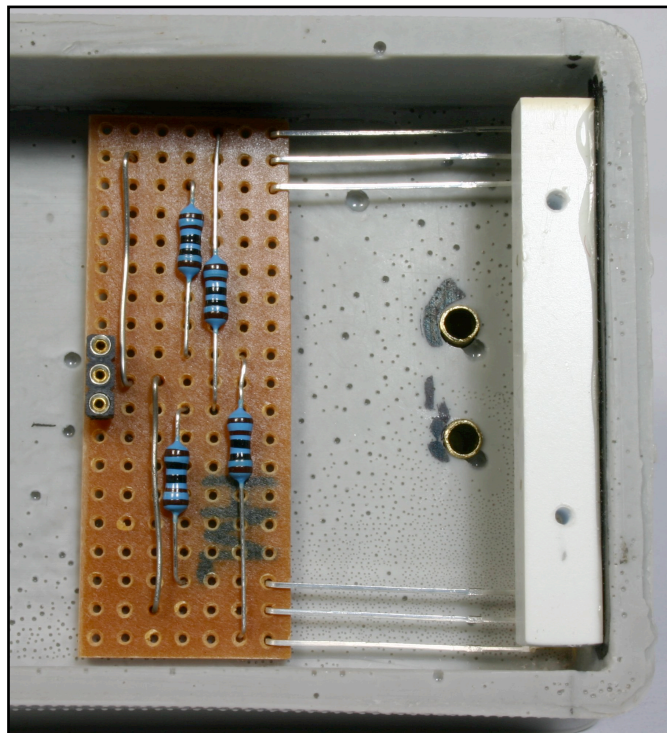
The Baldwin tender as supplied with the Century kit is essentially a decorated box on two bogies. The main components (photo 3) are made up of polyurethane body and floor castings, two cast brass bogies and detail parts in both brass and polyurethane. I assembled the bogies and drilled holes in the floor casting to allow two 12BA bolts to be inserted with the thread down so these could be bolted from below to allow disassembly at a later date if necessary. The instructions suggest that the two large castings that make up the body should be glued together. I was planning to install LED lighting in my tender to light the rear marker lights so I wanted access to the interior of the tender. I decided to use four brass screws to hold the two castings together which would allow me to separate the two parts and provide access to the interior of the tender for maintenance. I glued two lengths of square styrene into the body of the casting and drilled holes up through the floor and into these to provide some meat for the fixing screws.



Once I had the body assembled and sitting on its bogies I set about installing two red/white tower LEDs. I used the lighting circuitry design detailed by John Parker in his articles on installing red/white marker lights in his (C)32 class. I had to modify the vero circuit boards slightly by making them slightly wider to suit the Baldwin tender but they are essentially the same as those made by John in issue #21 of 7th Heaven. I drilled two holes in the rear of the tender where the marker lights would be placed and then glued the tower LEDs into position attached to the circuit board I'd made following John's description. I then drilled two holes through the marker light castings and glued these to the rear of the tender.

After this I set about decorating the rest of the tender following the instructions.

In the next part of this series we'll take a look at the chassis and installing working inside motion.





A Problem Solved

Paul Chisholm

I think it's fair to say that I am a reasonably patient man and not given to much swearing but if you had been a passer by during the set up of Arakoola at any of its exhibitions you may be forgiven for not sharing that view as you saw and heard me struggling to couple together some of the carriages that make up the mail train. The problem was that several of the carriages had end corridor connections and when I built them I installed working screw couplers, which look great but turned out to be almost impossible to couple up under the gangway and with buffers and brake hoses getting in the way as well. Aging eyes haven't helped either.

I put up with this for quite a few years but after the AMRA Exhibition at Liverpool last year I decided there had to be a better way so went looking for alternatives. Kadees were considered (for about ten seconds) and even HO size Kadees but apart from the appearance they still only worked effectively for coupling but uncoupling was very fiddly and they were hard to retrofit

to the carriages without a lot of butchery to the ends of the cars. I also tried a variety of home grown solutions with chain, links, hooks and various other bits of hardware but still much too awkward. Then one day I was leafing through the recently arrived O Gauge Guild Gazette when I came across an advertisement I had seen many times before but never really paid much attention to for a product called the Dingham Autocoupler.

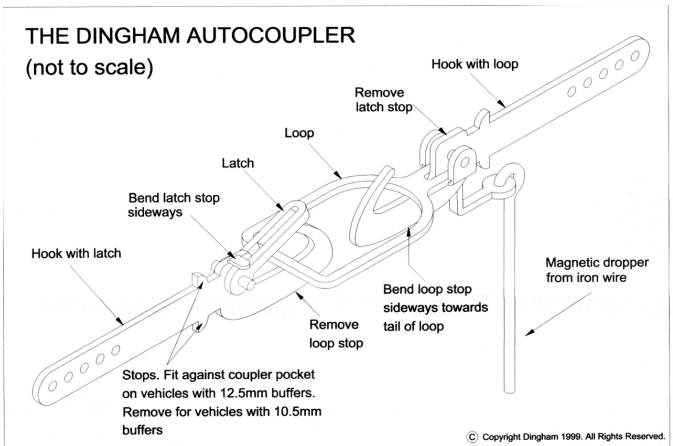
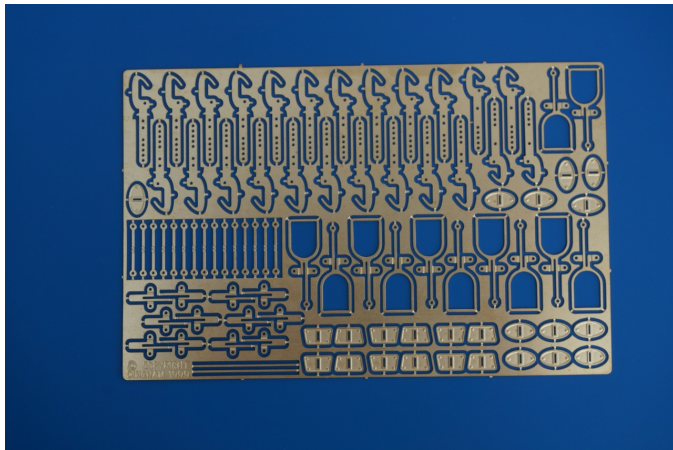
After a look at their web site which explains how they work I thought these had possibilities so took the risk and ordered a set from the maker in the U.K. These cost around \$45 AUD at the time including postage and contain enough components to equip 24 carriages or wagons.

I have now installed them on all the gangway fitted cars and a few of the others as well and am delighted with the result. Wish I had done it years ago. They are certainly not as close to the real thing as the screw couplers but are not that far off and

when located under the gangway buffing plate are quite unobtrusive. as the photo above demonstrates.

They couple smoothly as the cars are pushed together and with the use of a probe with a magnetic tip or just a pencil they uncouple just as easily. They will also couple to the cars still equipped with screw couplers and with locos having a hook and link coupler or an auto coupler with transition link. I have modified the assembly a bit, as explained later, to suit the particular application. They were not difficult to retrofit as they generally just fitted into the slot in the buffer beam vacated when the screw coupler was removed. One limitation to be aware of is that the carriages are not reversible but on layouts where this doesn't happen or for trains that run as fixed sets like the Arakoola Mail this is not an issue.

With a number of carriages with gangway connections now on the market or coming in the near future there will be a need for a coupler



that works in this location. You may find these are what you need.

What's in The Pack?

The package consists of two brass etch sheets each containing parts for twelve pairs of couplers. Ten of these have standard length shanks and two are slightly shorter but all have enough locating holes in the shanks to allow adjustment of the projecting distance beyond the buffer beam. You also get twelve trapezoidal shaped cover pockets and twelve elliptical pockets to slip over the shank where it enters the buffer beam, which gives a nice finishing touch to things even though I didn't use them as they are out of sight under the gangways. The rest of the etch consists of two types of latches which serve to lock the coupler once coupling takes place and prevent uncoupling when propelling. There is also some 0.8 brass wire for the locating holes and some soft iron wire for the magnetic uncoupling lever. Reference to the Dingham copyright diagram should make all of this clear.

Fitting and Modification

I assembled the couplers pretty much as specified in the quite extensive instructions but did make a few variations. First thing I did was to blacken them with Carrs Brass Blackener and then thoroughly clean off areas around moving parts and where soldering would be required. This renders them almost invisible when fitted. Next, I found that the latch would not operate properly because of the limited space between the coupler and the gangway floor above it. However this didn't matter because once located the gangways and buffers closing together prevented the loop lifting off the hook anyway rendering the latch superfluous in this application. Next modification was to the lever which lifts the loop. As I wasn't going to make use of the magnetic uncoupling facility I left this lever straight instead of bending it. This gave a longer lever for the probe to contact when uncoupling and I glued only a very short piece of the iron wire into the end for the magnetic tip of the probe to catch onto.

It takes a bit of trial and error to locate the shank so that it projects far enough to prevent buffer lock and to get the gangways just the right distance apart but once this is set up there is very little slack evident as the loop does not travel the full distance of the hook. With a train of seven cars the slack from end to end is hardly noticeable and certainly less than it would be with Kadees. It also helps if there is consistency in above the rail distance but a certain amount of variation doesn't seem to be too much of an issue.

Conclusion

I have found these to be a very functional and cost effective way to solve my problem. I can live with the slight compromise over prototypical appearance and this is certainly much less than would be the case with something like Kadees. And now you should have no fear about interrupting me if you see me trying to couple the train!





Auscision NSWGR 49 conversion

Photographs by the author unless otherwise indicated

Unfortunately this excellent model is not available from Auscision as a Ready-To-Run version with the inclusion of DCC sound. In theory this DC model can be described as DCC ready as it is equipped with an 8 pin DCC socket. This provision has already been described elsewhere as 'woefully inadequate'. I am afraid it is. It is possible to remove the adaptor plug and install a non-sound decoder but apart from the ability to then be able to run your model on a DCC layout the end result would not provide any improvement on conventional DC operation. You also have to remove 12-14 screws to gain access to the interior.

The forgoing comments are of course meant to be constructive; this is an excellent DC model but surely there is a market for RTR models equipped with DCC sound that no manufacturer has yet attempted to satisfy.

Conversion to DCC with both correctly operating lights and the enhancement of sound is not only possible it is not that difficult if you follow the information on the following pages. All the components used are readily available and the conversion should be achievable by most modellers. In some ways the first step is the hardest.

Invert the model and whilst supporting it in a suitable cradle or on a covered foam pad, remove the screws used to attach the body of the loco to the motorised chassis. After separating the two major parts it will be noted that most of the wiring is in the body, with just 4 wires providing the connection to the printed board assembly. These wires are terminated on plug which you will probably find was secured in place using a hot glue gun.

The next step requires a little confidence. Cut all the wires as close as possible to their termination on the printed board assembly. There is no need to make any notes on which wire is connected to what. Just cut all the connections so the board can be removed. Remove the two screws which held it in place. Put the screws in a safe place with the screws removed earlier. The printed

board assembly can be discarded. You will also need to remove the two screws which hold the 'box' in place underneath the grill covering the location of the exhaust fan. This is only removed to provide easy access to the various Light Emitting Diodes, (LEDs); it will be replaced once the modifications have been completed.

The conversion is based upon a Loksound XL 4.0 sound decoder¹, which will just fit in the space previously occupied by the original component board. Four small matrix boards will also be constructed in order to conveniently mount the current limiting resistors used for all the LEDs as well as providing a simple way of connecting the ribbon cables to the decoder. All the components required for this conversion are listed in the break out box on the final page of this article.

Breathe life into the NSWGR 49 class.

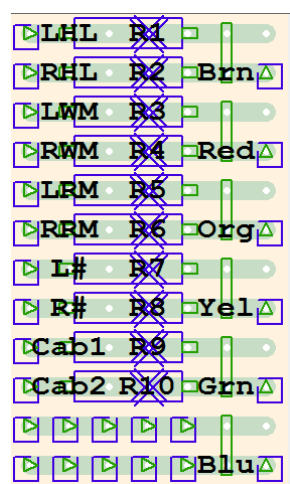
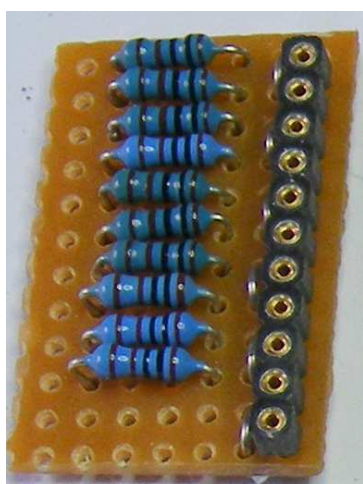
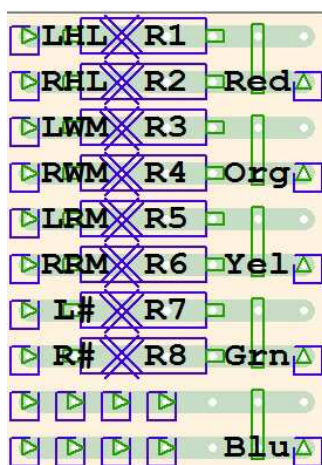
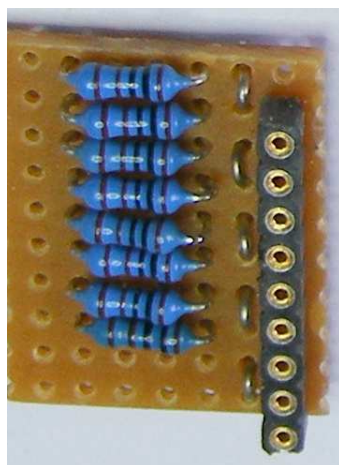
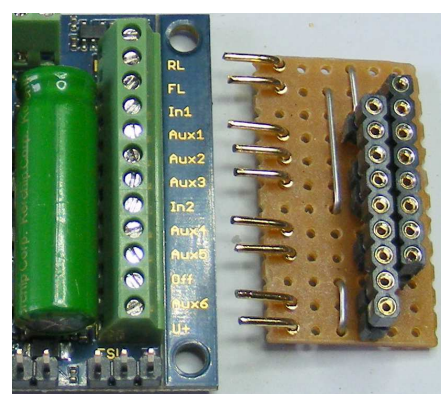
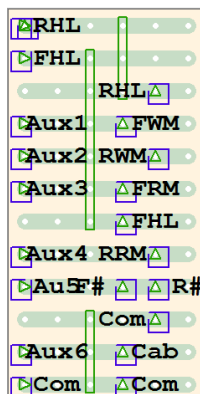
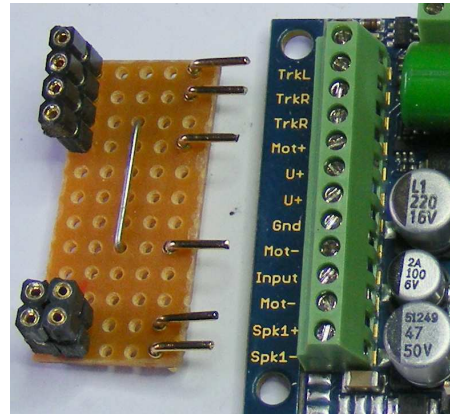
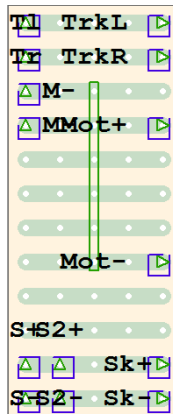
Straight out of the box this nicely detailed and beautifully finished model runs silently with smooth low and moderate speed response from you DC controller. Headlights and marker lights operate automatically with change of direction, not exactly prototypical but certainly attractive. What? You wanted DCC and sound together with independent control of the lights? In that case there is a little work to do.

John R B Parker

In common with many other similar conversions I found it convenient to use Vero² style matrix board material to fabricate the four assembly boards which contain the LED current limiting resistors and provide the termination point for the cabling. The cables are connected to the boards with plugs fabricated from the IC socket strip³ whilst the LED anode and cathode leads are soldered directly to the copper tracks.

The first two boards provide the motor termination and the function termination connections from the ribbon cables to the terminal strips on the decoder. The photographs show my initial use of printed circuit board terminals bent at right angles to provide the connection to the decoder. These proved to be too short and were replaced with tinned copper wire⁴ which was subsequently cut to an appropriate length. Both boards are 12 holes high by 5 holes wide, but these photographs and drawings show that some early versions were 6 holes wide, that extra width is unnecessary.

The photographs and drawings all are viewed from the component side of the board; there is no requirement to cut any tracks on these termination boards. The motor termination board has one wire link and the function terminating board includes three.



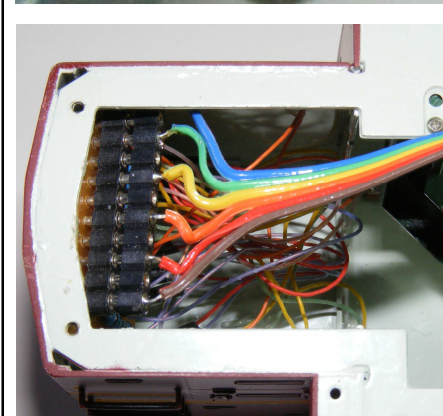
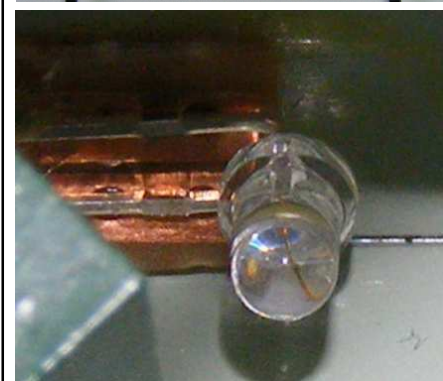
The third and fourth boards are used for mounting all the LED current limiting resistors. I used 0.5 watt 1000 ohms (1Kohms) resistors⁵. If you have any, physically smaller, 1K 0.25 watt resistors, they could certainly be used. Eighteen resistors are required, one for each LED. Sharp eyed readers will notice that this is more than were included on the Auscision printed board assembly. As supplied a number of the LEDs on this model share a common current limiting resistor which is not good practice, this was corrected as part of the conversion.

The top board, 10 holes high by 7 holes wide, used at the "B" end of the locomotive contains 8 resistors. The last board, 12 holes high by 7 holes wide, mounted at the "A" end of the locomotive contains 10 resistors. The two additional resistors are for the LED cab lights, not included on the purchased model. There are a number of wire links on these boards, clearly visible on both the drawings and the prototype photographs. The track immediately underneath each resistor should be cut using the spot face cutter⁶ or a suitable drill turned 'to and fro' in the fingers. The location of this 'cut' is shown on the drawings by the double 'X'. It will be noticed that there are two spots where this cut can be made under each resistor. One drawing shows a cut closest to the terminal strip whilst the other is furthest away. Obviously either will be O.K. but if you forget to make the cuts the LEDs will be spectacularly destroyed! A section of socket strip 9 holes long on the "B" end board and a piece 11 holes long on the "A" end board provide the termination point for the plug-in ribbon cables⁷. In reality this is more than is required but the longer sections are easier to install than a number of single section pieces.

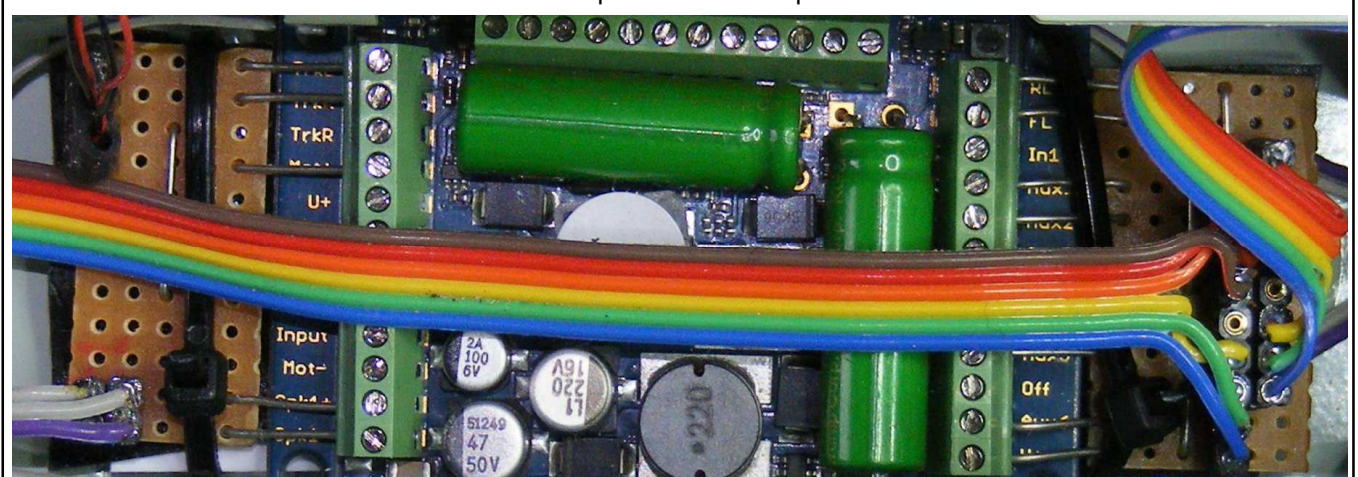
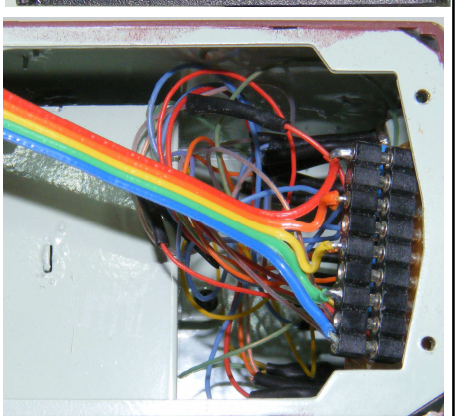
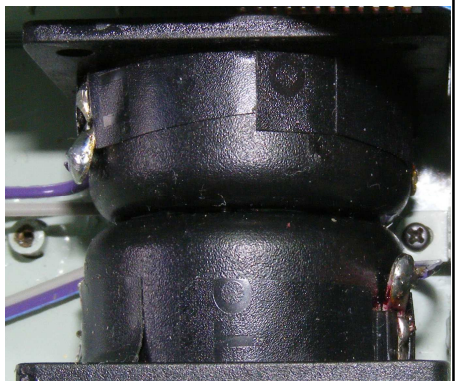
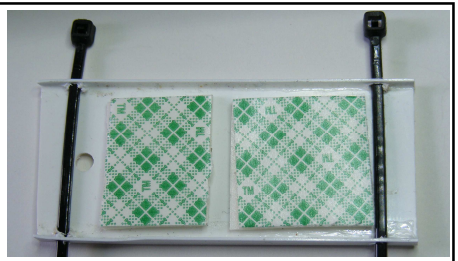
There is sufficient space within the body for the decoder to fit up against the roof in a similar location to that previously occupied by the original printed board assembly. It is however a tight fit and it is essential to cut off all the unnecessary protrusions into the body space from the hand-rail mounting brackets and other details. The use of a pair of sharp side cutters makes this a simple task. All of the LEDs will need to be removed from their

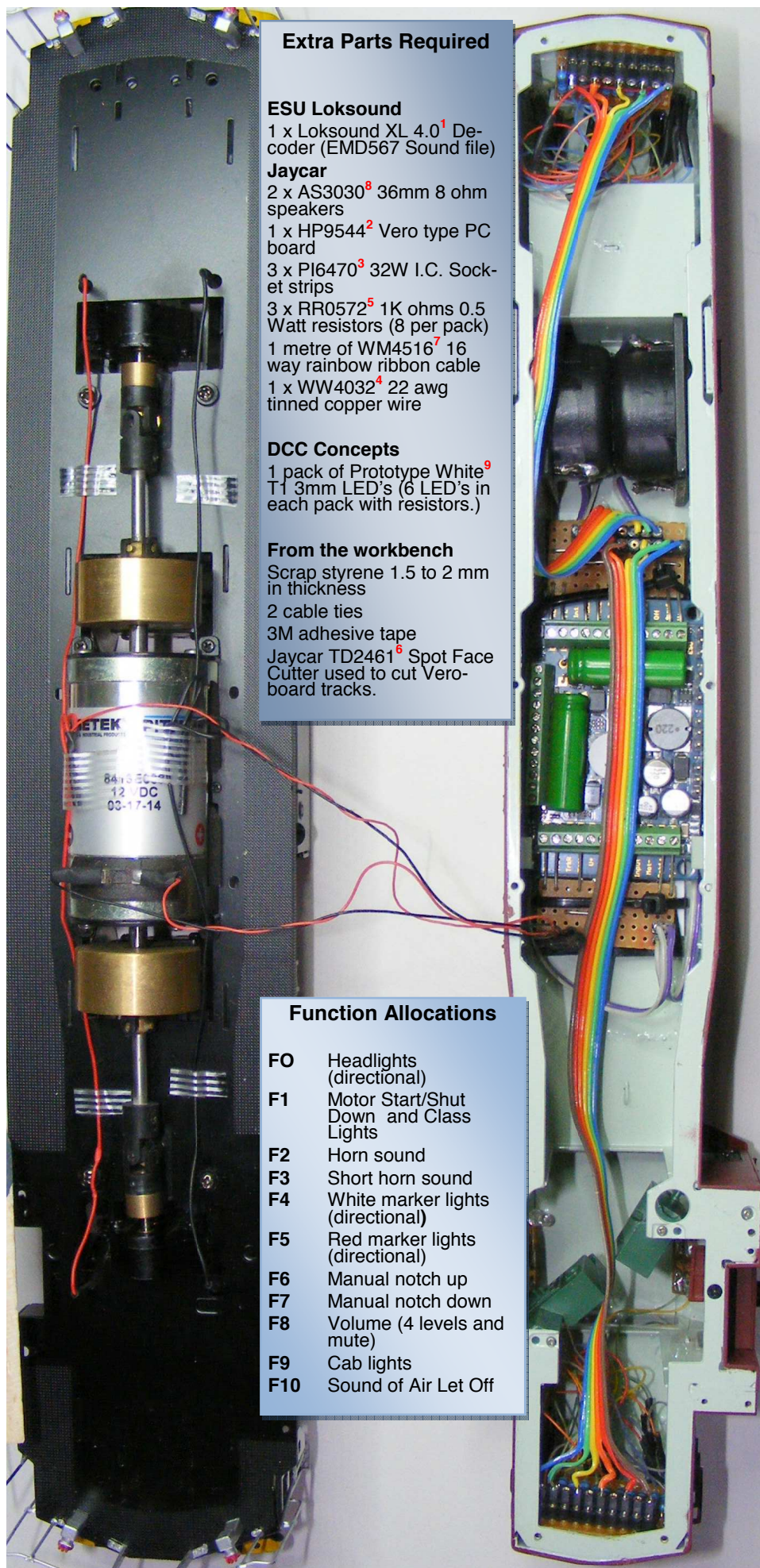
mounting holes before soldering to their respective termination boards. Even though it is not immediately obvious four of the LEDs are "red" so not all LEDs are interchangeable. As you remove the LEDs it will be noticed that they are wired in pairs. Identify the LED that has three attached leads and cut the wire which goes to the other LED so that it is as long as possible. Each LED will now have two leads. The leads on each LED should be of sufficient length to

permit easy termination. You may find that some of the LEDs have been filed to something less than 3 mm in diameter so that they will fit in their mounting blocks. I have found four LEDs that were modified to the point where a short circuit was possible. I would recommend that any such LEDs⁹ are replaced. (The 'burrs' which prevented the LED from fitting correctly can be removed from the mounting block with a hand held 3 mm drill.)



A tray to support the decoder can be fabricated from sheet styrene reinforced with angle strips. A hole in the tray will allow it to locate over one of the bushes attached to the roof. 3M adhesive strips are used to securely attach the tray to the roof interior; two cable ties threaded through slots in the angle strips will ultimately hold the decoder in place. Small pieces of Veroboard were used to mount the two LED cab lights. Solder the LED to two tracks on the board together with two short lengths of wire which will then be terminated on the "A" end decoder board. These assemblies were glued to the sloping section of the cab roof with contact cement. The final subassembly required is the preparation of the speakers⁸, no enclosure this time due to the limited space available. Advantage is taken of the fact the AS 3030 is fully enclosed. The holes in the moulded housing should be sealed using black electrical tape to prevent a direct air path from the front to the rear of the speaker. The speakers are glued in a back to back configuration with contact cement. You may need to temporarily hold them in place with tape or rubber bands as the opposing magnetic fields will cause the speakers to drift apart.





Extra Parts Required

ESU Loksound

1 x Loksound XL 4.0¹ De-
coder (EMD567 Sound file)

Jaycar

2 x AS3030⁸ 36mm 8 ohm
speakers

1 x HP9544² Vero type PC
board

3 x PI6470³ 32W I.C. Sock-
et strips

3 x RR0572⁵ 1K ohms 0.5
Watt resistors (8 per pack)

1 metre of WM4516⁷ 16
way rainbow ribbon cable

1 x WW4032⁴ 22 awg
tinned copper wire

DCC Concepts

1 pack of Prototype White⁹
T1 3mm LED's (6 LED's in
each pack with resistors.)

From the workbench

Scrap styrene 1.5 to 2 mm
in thickness

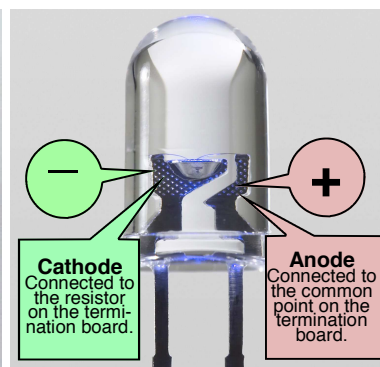
2 cable ties

3M adhesive tape

Jaycar TD2461⁶ Spot Face
Cutter used to cut Vero-
board tracks.

Function Allocations

F0	Headlights (directional)
F1	Motor Start/Shut Down and Class Lights
F2	Horn sound
F3	Short horn sound
F4	White marker lights (directional)
F5	Red marker lights (directional)
F6	Manual notch up
F7	Manual notch down
F8	Volume (4 levels and mute)
F9	Cab lights
F10	Sound of Air Let Off

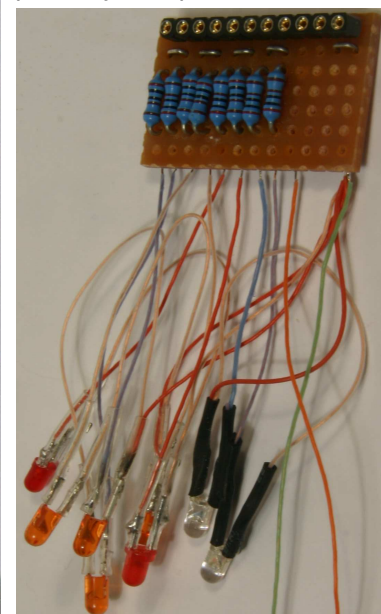


Cathode
Connected to
the resistor
on the termi-
nation board.

Anode
Connected to
the common
point on the
termination
board.

The photograph above should assist in connecting the LEDs correctly. Reversed connections will not damage the LED but it will not illuminate. If you connect the LED without the resistor you will be rewarded with a one-time terminal flash of light!

The following photograph from Trevor Hodges's conversion shows all the anodes joined together and terminated at a single point rather than on individual pads, either solution is perfectly acceptable.

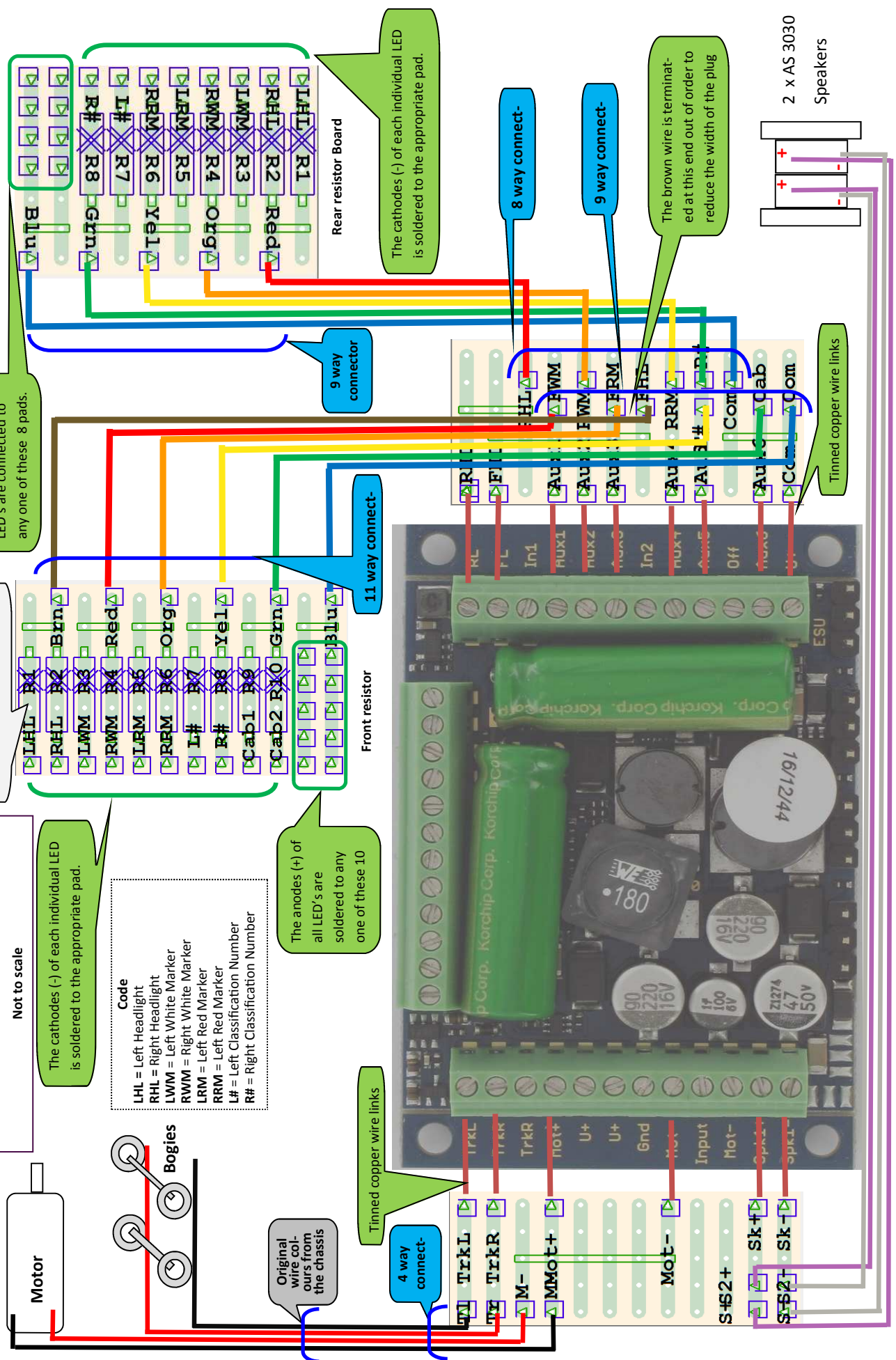


This is a perfect opportunity to hone your electronics soldering skills. Remember to use resin cored solder and do not use any additional fluxes. Study the photographs and adjacent wiring diagram. Install the decoder in the tray, glue the speaker assembly in place and attach the resistor boards with self-adhesive tape. A copy of the decoder program can be provided if required.

John R B Parker

O scale 49 class wiring diagram

Not to scale





SOMETHING ALMOST COMPLETELY DIFFERENT

By Peter Krause

Following up on an article that originally appeared in Issue 34 of 7th Heaven (Winter 2012) on my work in progress home layout Beyond Black Mountain; I noted at the end of the article that I would provide an update at some stage in the future. This is not an update per se as up until recently absolutely nothing has changed or happened since I penned the aforementioned article due to a myriad of reasons which I will not go into in depth except to say I am experiencing some health issues.

Some time ago I took stock of where I was up to with Beyond Black Mountain and came to the conclusion that it was a bridge too far and I needed to do something simpler. Out came a myriad of books containing plans as I sought a solution to my modelling conundrum. One of the criteria I set was that the layout had to be able to be transportable without having to call in Cecil B De Mille to arrange the movement.

Initially I came up with a plan that was loosely based on South Brisbane Interstate Station and surrounds which would have been called South Moreton and was very tempted to proceed with it. However I baulked because it would require building bench work from scratch and instead I looked at options that could be used incorporating some of the existing Beyond Black Mountain bench work from the area known as Llangothlin Road which had been built to be transportable but was narrow.

As draft plans evolved I kept going back too one option that had a striking resemblance to Tenterfield. The drawback was that Tenterfield never had a grain silo and that was one of the criteria I had set. The turning point was when I was admiring the HO laser cut building kits produced by Model Train Buildings www.modeltrainbuildings.com.au which included

Tenterfield Station building. I casually asked the owner (Stuart) whether he could produce it in O scale and to my surprise he said that any building available in HO can be produced in O for a price. As he said, essentially all that is required is to double the dimensions and adjust the tabs. That was the turning point and I ordered an O scale laser cut kit of Tenterfield station which I have since taken delivery of, all 200++ pieces of it, and I am looking forward to building it.

I then firmed up on the plan that resembled Tenterfield and looked at how it could be adapted to fit on the four 1.8 metre modules that currently contained Llangothlin Road keeping in mind that all tracks had to be accessible, of which some were not on Beyond Black Mountain.

I worked out that by adding 250mm to the face of the four modules I could get a reasonable interpretation of Tenterfield into the available space but would have to settle for a two bay engine shed and the three through tracks (platform road, through road and down goods road) would only be about half the length they should be in order to keep all the tracks within arm's reach. That in itself was not perceived to be a problem as train length was expected to be limited to just over 2 metres by fiddle yard constraints and the three tracks would comfortably accommodate this length of train.

Before I could change my mind (again) I removed the tracks from the four Llangothlin Road modules and started to convert the first one for the new layout. Once the first one was done, the other three followed in quick succession with the assistance of friend and fellow modeller Rob Ritchie who had some Thursdays free at the time and must own just about every tool needed to build a model railway.

The rebuild included the removal of the existing back drop as I was never happy with it (too American for an Australian layout) and the rebuild gave me an excuse to replace it. The replacement back drop is produced by Wuiske Models in conjunction with Haskell and has lots of gum trees.

Progress has been good to date with Module 1's track laid, wired and the scenery a work in progress. I am recycling the Old Pullman track and some Old Pullman plus some hand built points from Beyond Black Mountain. The track is fully laid on Module 2 and once Module 1 is basically finished (I always am of the opinion that Model Railways are never finished and always a work in progress) Module 2 will be transferred to the workbench for wiring and scenery. The station will eventually be located on Module 2 with a small portion of the platform protruding onto Module 1. The tracks on Module 3 that interface with Module 2 have also been laid but further progress has been halted on Modules 3 and 4 while I firm up on track design arrangements for the engine shed which will straddle Modules 3 and 4 and the turntable on Module 4. The engine shed area will be inspired more by that at West Tamworth rather than Tenterfield itself as West Tamworth is more adaptable to the available space than is Tenterfield. For an engine shed, I plan to recycle the partly built one that was originally on Beyond Black Mountain. The goods shed will be on Module 3 but I am yet to firm up on a source for that one.

The turntable is also something that I am yet to resolve. I currently own one of the 60' turntables that Anton produced a few years ago which has proven to be unreliable. What I am considering is whether to rebuild it in the hope it will become more reliable or to simply replace it with something that potentially is more reliable. I will need to bite the bullet soon on this as it is currently holding up further track laying on Modules 3 and 4.

There will be a fiddle yard at each end of the layout, one being Glen Innes and the other Wallangarra. Overall they will be 2.4m long and able to accommodate a 2.1m train.

Each will be in the form of a traverser and will be on wheels enabling it to be rotated to change the direction of the trains enmasse. If I can get that one to work (the design is currently only in my mind which I do concede is a worry) I will provide an article for this magazine on how I did it.

The layout is powered by a Lenz DCC system and all 240 volt transformers are incorporated into Module 1 as is the lighting control. All points are being powered by Tortoise motors push button operated via Atlas Snap Relays. Pelmet 250mm deep will be placed along the top to hide the lights once track laying and basic scenery is completed.

And the name? While the layout is "inspired" by Tenterfield and has a lot of similarity with the real Tenterfield, I feel that calling it Tenterfield is not ideal. Therefore I have decided to christen it SADDLERSFIELD. I am sure most readers will be able to work out how I arrived at that one.



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 following information about their various passenger carriage projects. The expectation is that the TAM kits will be available at the upcoming Sydney March Forum, price will be \$500 per carriage. Patterns for the MHO and VHO vans will be available for viewing at the same time, as will patterns for two Pullman cars which can be used to make up an NCL set. Preparing these patterns, plus difficulties with TAM bogies, has delayed work on the N and HUB/RUB cars. Bogies for these carriages should be fairly straightforward compared to those of the TAM car.

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 have advised that the new livery of our Hudswell Clarke has arrived and is available for sale in Australia. Only 20 have been imported, and some of those are sold or in shops already, so contact should be made quickly if you want one. Price - despite inflation and currency devaluations - remains at \$325.00 plus \$20 postage if required.

Model O Kits

ModelOKits, PO Box 379, Sydney, NSW, 1700, (02) 97073390, 0404935663, <http://www.modelokits.com> & sales@modelokits.com say that there are still some AD 60 kits available but numbers are reducing. (C)36 class kit order forms available now on the web site. Price will be \$1699 up until orders close in March, 2015 with a price of \$1799 for the few additional kits to be made available at time of delivery. The pilot model is expected in March/April 2015 with delivery expected in July. Model O are able to provide ready to run option but these must be done in batches of six so sufficient orders will need to be received before this can proceed. Expected total cost around \$3000 (including kit, build and black paint).

News of wagon kit availability is as follows: end door ICV's will be available from February 2015. This is the first time this variation of the ICV has been made available. BWF flat wagons and PHG's will be back in stock early February 2015. The production of PHGs is strictly limited to twelve kits so potential purchasers need to get in early. Price will be \$449.00 per kit. LV, K, U and CW wagons will be back in stock from March with G, GP, ICV, BD, S, KF, RU wagons and all infrastructure kits all in stock now. The latest Lasercut kits are the NSWGR Lamp Room buildings and low relief shop front and these are also in stock now.

Model O's new online store is now operational, with both the old Waratah and ModelOKits sites combined into one new site. Either of the old web addresses (www.modelokits.com or www.waratahmrc.com.au) will take visitors to the new site.

Our spare parts will be listed on our online store by end of January 2015. Other items of interest to the O-scale modeller such as Slaters Components, Micro Engineering Track, K&S Metal Profiles and Evergreen Plastic Sheet and Profiles will become progressively available over the next few months.

Upcoming projects: HG guards van (2nd quarter 2015), FS/BS Carriages (3rd quarter 2015), LHG guards van (4th quarter 2015) with the BD Steel Open Wagon, BBW Ballast Wagon and TRC Bogie Van to follow.

ModelOKits would also like customers to know that they have taken on supply of the Aus7 spring loaded track gauges which have been out of stock for a number of years. Sets of two will be available for sale at the upcoming Sydney Forum for \$29.

O-Aust Kits

O-Aust Kits info@oaustralkits.com.au, and via the web site at www.oaustralkits.com.au, at PO Box 743, Albany Creek, Qld, 4035, mob 0419680584 or (07) 3298 6283 advise that the Tulloch 10,000 gallon tank car kit has been delayed again as they were not 100% happy with the way the tank barrel castings turned out. Consequently a decision has been made to recast them using a different pattern. Assembly instructions are being drafted while the re-casting is happening. Decals are being produced to cover BP, Golden Fleece and Ampol liveries. Each kit will contain decals for one company only.

The initial run of C30T locomotive kits and HCX kits sold out at Liverpool, as did the VR P van at Caulfield. New components have now been received and all these kits are now back in stock. MHG stocks are low.

A new batch of 4 wheel non-air coal hoppers is being produced and should be available prior to the March Forum.

Planned for 2015 release for NSWGR 7mm modellers are the revamped (new mechanism) D50 class loco with 'Commonwealth' tender and the BX and LFX dogbox passenger coaches. Planned for Victorian modellers is a kit for the BB and BP bogie box vans.

Precision Scale Models

Precision Scale Models PO Box 8200, Ferntree Gully, Victoria, 3149, Australia <http://www.precisionscalemodels.com.au/> or via email at jdella@precisionscalemodels.com.au have advised that their NSWGR (C)38 class project is very close to final sign off. At the time of writing information was being exchanged between the factory in Korea and Australia about final detail changes. The expectation is that final approval should occur in early February. The manufacturing process has a set time frame and models should be available for shipment within 60 days of final approval.

Precision Scale Models wished customers to be aware that no models will be posted to individual purchasers. From past experience it is felt that they would not withstand the process of posting and there are no "spare" models available to replace any that are damaged. Arrangements are in train to allow direct pick up of models from a Sydney location when they become available. It is strongly advised that customers contact PSM directly if they have any questions concerning delivery of models.

O Scale Modellers Forum

Come and enjoy a day focussed on modelling the prototype in O scale. Be inspired by our guest speakers and see the latest products from specialist O scale traders

Featuring..

AMRM Editor Ian Dunn:

Four-Wheel Wagons of NSWGR

Ian Thorpe:

Layout Planning

Phil Badger:

Mass production RTR locos

John Parker:

Simplifying DCC Installs

+ Vendor News & What's new?

Don't forget to Bring and Show your latest modelling project

\$30 including tea/coffee

Lunch available in the Bistro

All are welcome

Saturday March 21 2015

NORTH SYDNEY LEAGUES CLUB – NORTHS

12 Abbot Street Cammeray

9.00 am to 4.00 pm—Doors open 8.30 am

Be there for the conclusion of our special membership drive. Will your bonus chance reward you with an O scale PSM 38 ?



Saturday July 11, 2015

Brisbane O Scale Modellers Forum

Aspley Australian Football and Sporting Club
50 Graham Road, Carseldine Brisbane
9.00 am to 4.00 pm

It doesn't all happen south of the border, come along and be part of our first Queensland get-together. Feel free to bring a model to show to others.

Featured speakers will cover a range of topics on both the prototype and O scale modelling, together with specialist O scale traders.



Our new releases for 2015....

HG Guards Van
- Kit expected delivery
Quarter 2, 2015



WARATAH

MODEL RAILWAY

COMPANY



LHG Guards Van - Kit expected delivery Quarter 4, 2015

Price List Sept 2015

KITS		EACH	4 PACK
K	OPEN WAGON (Not currently available)	\$140.00	\$500.00
KF	FLAT WAGON	\$140.00	\$500.00
LV	LOUVRE VAN (Not currently available)	\$165.00	\$600.00
CW	CATTLE WAGON (Not currently available)	\$165.00	\$600.00
RU	WHEAT HOPPER WAGON	\$165.00	\$600.00
U	OPEN HOPPER WAGON (Not currently available)	\$160.00	\$600.00
S	OPEN WAGON	\$125.00	
PHG	BRAKE VAN (Available February 2015)	\$449.00	
ICV	INSULATED COVERED WAGON (includes buffers and couplers)	\$210.00	
BWF	BOGIE FLAT WAGON (includes buffers and couplers) (Available February 2015)	\$215.00	
BD	BOGIE FREIGHT WAGON (includes buffers and couplers)	\$215.00	

Unless otherwise noted, kits do not include buffers or couplers

RAILWAY INFRASTRUCTURE	
24' GIRDER BRIDGE SPAN (BRASS & TIMBER) 1 SPAN (Not currently available)	\$115.00 - 1 SPAN \$215.00 - 2 SPANS \$285.00 - 3 SPANS
70' GIRDER BRIDGE SINGLE TRACK (BRASS & TIMBER)	\$650
70' GIRDER BRIDGE DUAL TRACK (BRASS & TIMBER) (Not currently available)	\$850
5 TONNE GOODS CRANE (WHITE METAL AND BRASS)	\$175
9" WATER COLUMN	\$90
12" WATER COLUMN	\$125
WEIGHBRIDGE & HUMPY	\$140
10,000 GALLON CAST IRON WATER TANK (RESIN - NO STAND)	\$40
LINE SIDE DETAILS	
POST AND RAIL ASSEMBLY (100MM)	\$12.00 EACH
FETTLERS TOOLS (SET OF 3)	\$5.00 PER SET
MILEAGE POSTS (SET OF 1/4, 1/2, 3/4 AND 1/1 POSTS)	\$5.00 PER SET
SPEED SIGNS (SET OF 2)	\$5.00 PER SET
44 GALLON DRUMS (POLYURETHANE)	\$10.00 FOR 4 \$19.00 FOR 8
MILK URNS (POLYURETHANE)	\$10.00 FOR 5 \$35.00 FOR 20

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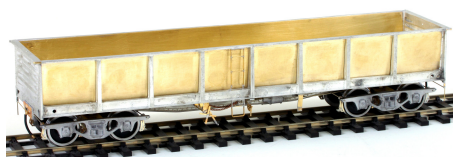


N.S.W.G.R FS/BS CARRIAGES

- expected delivery late 2015

Watch our website for more information soon!

In Stock Available Now.....



photos of pilot models



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

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

- Price \$2599.00
- limited additional kits in stock and available



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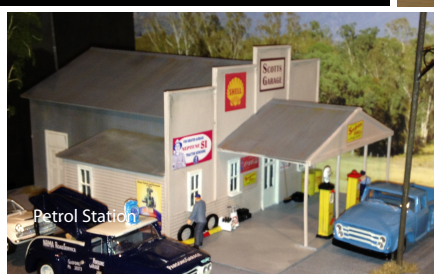
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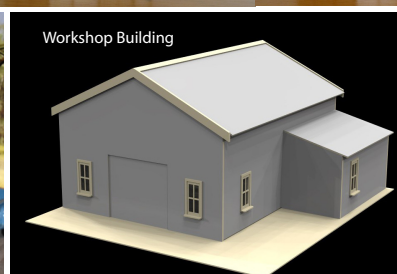
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pay online with PayPal or call us
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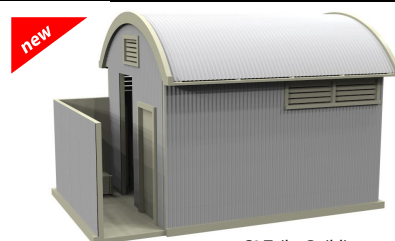
Petrol Station
Kit contains parts for the building only. Does not include bowsers, vehicles,
signs or accessories



Shop Front



C2 Toilet with Lamp Room



C2 Toilet Building

Images of painted kits are for illustrative purposes only. All kits come unassembled & unpainted.

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NSWGR PC-2 Station Building Kit	\$89.00	Card Level Crossing	\$13.00
NSWGR PC-1 Station 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
Concrete Platform Fascia Kit	\$25.00	Corrugated Water Tank 1500mm Diameter Kit	\$9.00
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 Sheetting (390mm x 208 mm x 0.25mm)	\$4.00 ea	Platform Seat - Version 1 Kit	\$5.00
Weatherboard Sheet (390mm x 208 mm x 0.25mm)	\$4.00 ea	Platform Seat - Version 2 Kit	\$5.00
Post & Rail Fence Kit	\$20.00	"No Way" Sign Pack of 4	\$4.00
Corrugated Iron Fence Kit	\$12.00	Various O Scale Waterslide Decals	\$10.00 - \$12.00

New Products

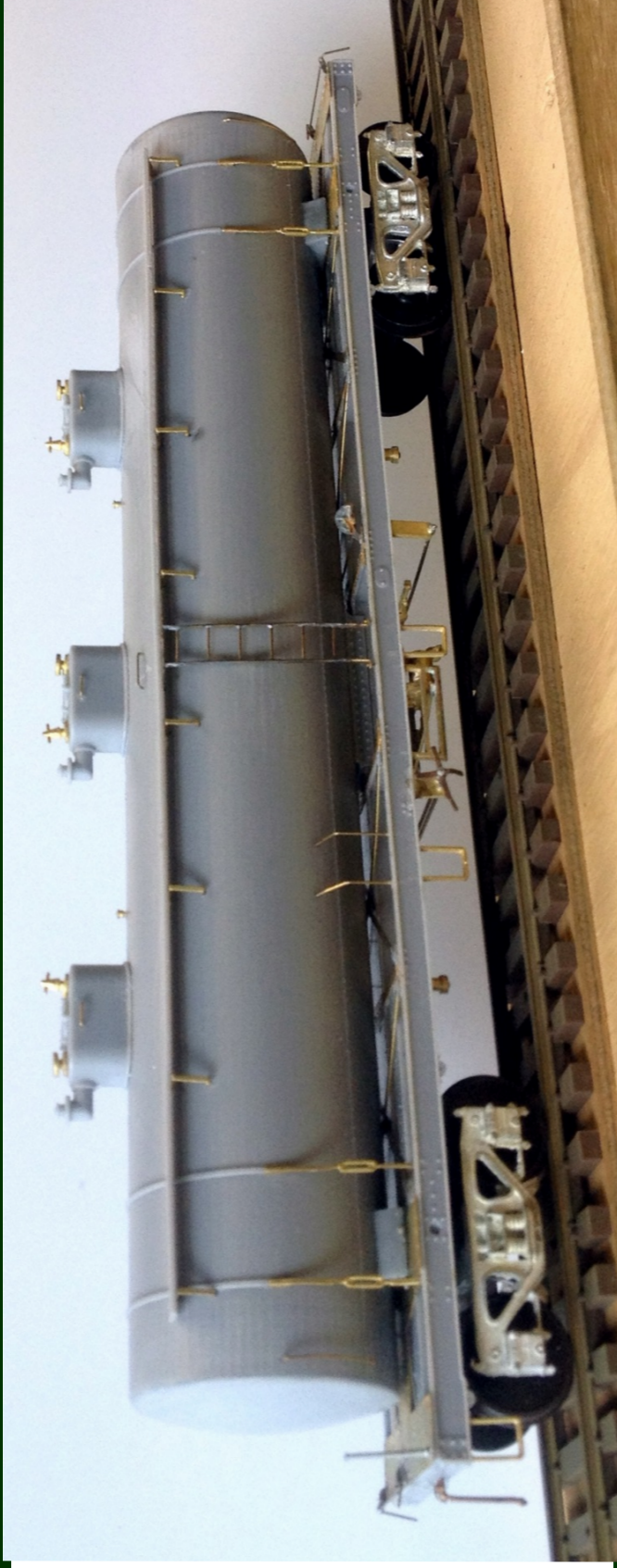
Petrol Station	\$89.00	Speaker Boxes - To suit Jaycar AS3030, AS3028 speakers	\$6.00
General Store	\$89.00	C2 Toilet Building	\$38.00
Workshop Building	\$79.00	C2 Toilet with Lamp Room	\$49.00
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NSWR BX FIRST CLASS SIDE DOOR PASSENGER CAR WITH 2AF BOGIE