7th Heaven

Aus7 Modellers Group Inc.

Journal of the Aus7 Modellers Group Inc.
No 21

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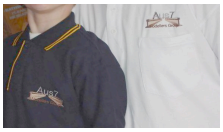
Autumn 2009

In this Issue:

Aus7 Modellers Group Inc.

Merchandise



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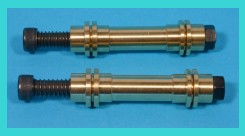

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Contact: Keiran Ryan
39 Coachwood Cres
Picton, (02) 4677 2462
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Membership of the Aus7 Modellers Group costs just $AU30 per year.

Memberships are due for renewal by June 30th no matter what time of year you joined. Please forward payment to the Treasurer, Roger Porter at 4 Bridge Quarry Place Glenbrook NSW 2773

The Waratah Model Railway Company

First In Quality - Second To None

Waratah are having another Waratah Workshop on 13 June at the Scout Hall, Wilson St, Panania from 9.30 am until 4.30 pm. This is an opportunity for any interested modeller to get a Waratah kit out of the cupboard and bring it along and work on it in the company of other modelers.

This time the emphasis will be on painting and weathering and Dave Morris, Paul Chisholm and John Parker will all be demonstrating their painting and weathering techniques. Come along and see how the experts do it.

The cost is $10 which includes lunch and morning tea.

Waratah Model Railway Company, PO Box 509, Revesby, NSW, 2212
Ph: (02) 9785 1166 email: waratahmrc@optusnet.com.au or charris@nigelbowen.com.au

One Modeller's Opinion

BUT IS IT ART?

by Paul Chisholm

At the start let me admit that my admiration for some forms of art is somewhat limited. If it makes me a philistine to to think that placing some domestic refuse on a stand in a white walled gallery qualifies it as art then I have to plead guilty. My definition of art is that it is a creation that is someone's perception of reality represented in a form which takes a level of imagination and technical skill to produce. On this basis I am really able to accept quite a wide variety of forms of expression as art. One of these is model railways!

When you think about it most of our model creations are our attempts to take something from the real world which has an emotional appeal to us, translate it through our perceptions and then represent it to others through the application of a number of skilled processes in order to evoke some form of response from them. This last point may not matter to some who don't care what others think of their work but I would suggest they are a minority of modellers and indeed artists.

There are a number of other similarities between our modelling and "art". For a start we generally present an idealised and nostalgic recreation of reality not unlike many well known paintings. Similarly we often attempt to preserve a moment in time so that it may continue to be enjoyed long after it has passed. At any exhibition, model railway or art, can be seen critics in earnest discussion about the merits of the work, be it painting or layout. I could go on, but I think you probably get what I am driving at.

On a technical level just think about the artistic skill involved in any model railway creation. First there is the imagination involved in conceptualising what you want to achieve. Then comes the skills of engineering, construction, sculpting, painting, colour selection and so forth. I would suggest that the talent required to do some of these well is equal to or greater than required for an oil painting, water colour, sculpture or piece of pottery or jewellery. I am sure we have all seen models where the modeller's (artist's) eye for form and colour and the skill levels applied are so refined and subtle that a superb model results while in other cases it just doesn't come together. Much like many paintings! I also happen to think that O scale is a superior "medium" for artistic presentation as it allows for the representation of greater levels of observable detail, refinement and accuracy than the smaller scales.

It is probably not likely that we will see a model railway in the art gallery any time soon but if that were to happen I think it would be perfectly legitimate. Perhaps it would then achieve a record price at a Sotheby's auction. The fact that this is a remote possibility should not deter us from regarding our modelling as art. So the next time someone asks you what your hobby is I think you would be perfectly justified in replying that you are an artist.

Editor's Note

This issue has exhausted the reserve of articles held for publication. Unless more members contribute, the future of 7th Heaven is uncertain. The efforts of the small group of regular authors has been appreciated but they cannot be expected to continue this regular output. If you are an active O scale modeller of any prototype, gauge, 7mm or 1/4" scale, please write about or photograph your projects and share them with us. If you have doubts about your literary or photographic skills contact one of our team listed in the side column and we will be happy to help. The future of 7th Heaven depends on you.

7th HEAVEN

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On The Cover
Almost brand new 4814 is having some teething problems. Read more about enhancing your 48 in an article by Roger Porter starting on page 4.

A Decoder, Sound and Lights for the O Aust 48

by Roger Porter

This is the third in a series of articles on enhancements to the O-Aust 48/930 locomotive. The first, in issue 18, showed how to fit sprung buffing plates. The second, in issue 20 dealt with improving electrical pickup. This time we take a look at the fitting of decoder, sound and lights.

The installation of the "Loksound XL" decoder into the O-Aust 48 Class loco kit may seem to be complicated, however when broken down into stages, it just becomes a few steps that with care can be managed by any 7 mm modeller.

The following notes apply ONLY to the O-Aust 48 Class kit with the single central motor and the chain drive gear towers, sometimes referred to as the "NZ mechanism".

These notes do NOT apply to the O-Aust 48 Class kit with the motor/s mounted directly onto the bogie, sometimes referred to as the "K & M mechanism."

The process can be broken down into the following stages.

Stage 1. Move motor and modify drive shafts.

Stage 2. Modify roof panel.

Stage 3. Modify end panel.

Stage 4. Make and install circuit boards.

Stage 5. Install speakers.

Stage 6. Final assembly and wiring.

STAGE 1. MOVE MOTOR AND MODIFY DRIVE SHAFTS.

To allow space for the decoder the motor must be moved forward towards the cab by 10 mm. The brass motor mounting bracket is secured to the chassis by three screws. Just drill three new holes 10 mm closer to the cab. Also, the motor and long hood drive shaft must be skewed slightly to one side to allow space for the decoder to sit beside the drive shaft. The play in the three new holes that you've just drilled may allow for the slight amount of skew necessary. If not, just open up to the next size. The bottom corners of the brass motor mounting bracket may need filing to allow the motor to skew. To allow maximum clearance for the decoder, the motor should be skewed as far as it can go, until it touches the inside of the long hood casting.

By moving the motor forward by 10 mm, one drive shaft must be shortened by 10 mm, and the other lengthened by 10 mm.. To lengthen the drive shaft, cut it in half and slip a piece of K & S brass tubing over the ends such that it is 10 mm longer than before. To shorten the other shaft, cut 10 mm out of it and again join the ends with brass tube superglued on.

Photo 1 shows the motor moved forward and skewed to one side with the now unequal length drive shafts. The flywheel shown in the photo is optional and has no effect on the notes and dimensions above. The decoder will sit down beside the drive shaft, but because the decoder has various sized components on its board it fits in and nestles around the universal joint on the drive shaft better one way than the other.

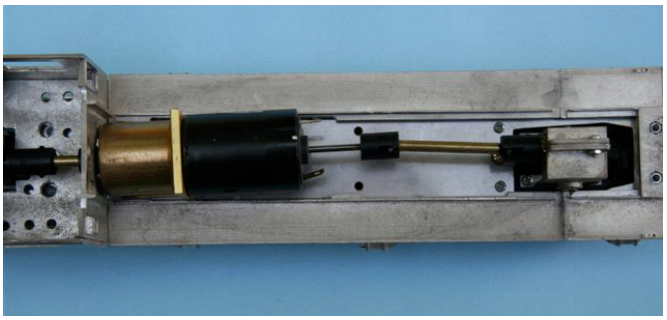


Photo 1. Relocated motor and skewed drive shaft

STAGE 2. MODIFY ROOF PANEL.

With the decoder positioned as noted above it will be found to project above the height of the body sides and into the roof panel. Accordingly, a slot must be cut into the roof panel to house the top of the decoder.

Sketch 1 shows the slot to be cut out of the roof panel to house the decoder. This is best done in a drill press using a Dremel end milling cutter, or a ¼" or so end mill or slot drill from a machinery supplier. The slot is shown in some of the photos, but note that the photographed slot is larger than it needed to be. Take care not to break right through the roof casting. Take cuts of … say…1 mm at a time and by holding the casting up to the light between cuts you will be able to assess progress due to the casting's slight translucency.

If cab lighting is being installed you will also need to cut a slot to house the LED's and resistors as shown on the sketch. This is because of the restricted headroom in the cab. The slot for the cab lights should be 40 mm x 5 mm x 3 mm deep. The cab lighting is shown by photo 12 in stage 6 and uses conventional 3 mm white LEDs.

The ends of the roof panel must also be cut out to house the LEDs and circuit boards for the headlights and number board lights. Photos 2, 3, & 4 show before and after views of the cut outs required in the roof panel. Use the white metal headlight / number light castings supplied as a template to determine the positions for the headlight and number light holes in the roof panel. Some minor fettling of these cut outs with a Dremel will be necessary when fitting the circuit boards with the LEDs attached into the roof and end panels.

STAGE 3. MODIFY END PANELS.

The long hood end panel must be modified to house the circuit board at the long hood end. Photo 5 shows a before-and-after view of the end panel. This modification is best done in a drill press with a Dremel end milling cutter. Note that the photo does not show the 3 mm holes that must be drilled for the marker lights. Two holes in each end panel must be drilled for a Mk I loco and four holes in each end panel for a Mk IV loco. Other than holes for the marker lights, the short hood end panel does not require any modification.

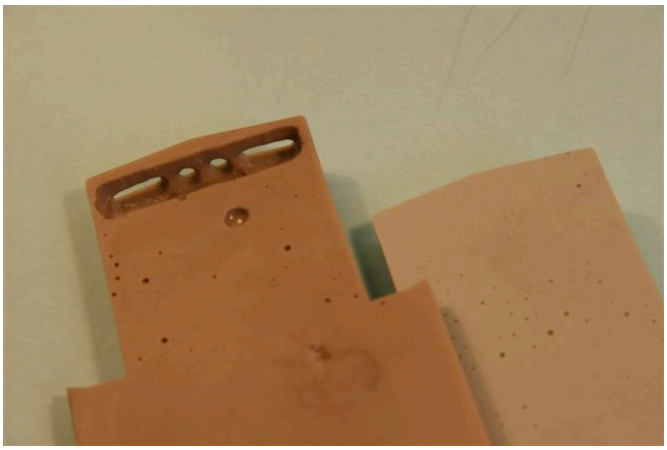


Photo 2. Roof panel cutouts.

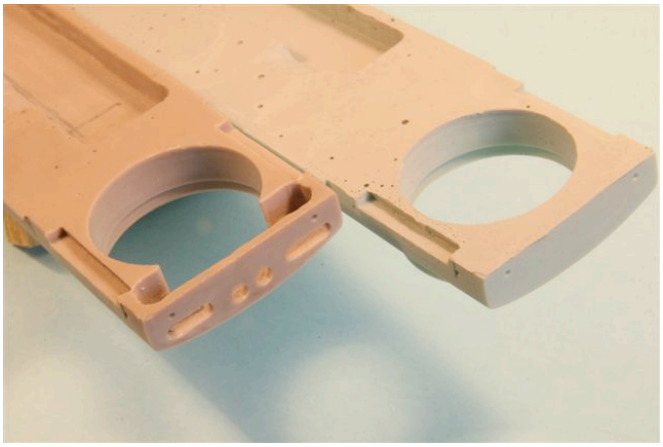


Photo 3. Roof panel cutouts.

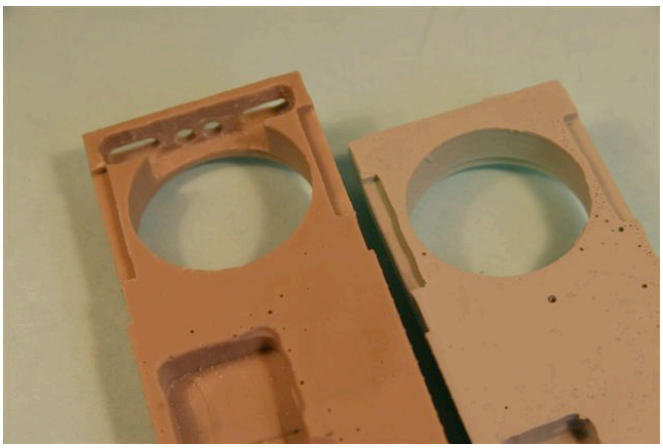


Photo 4. Roof panel cutouts.

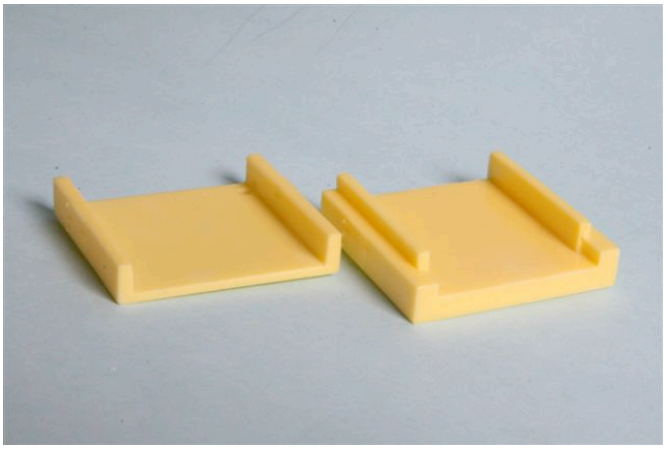


Photo 5. End panel.

STAGE 4. MAKE AND INSTALL CIRCUIT BOARDS.

The circuit boards were designed by John Parker and are brilliant in that they save a great amount of wiring and clutter. To accommodate ten LEDs and ten resistors and their associated wiring in the space allowed would not have been easy without the circuit boards.

At first the making of the circuit boards may appear daunting, but I know of two modellers who have had no previous experience with circuit boards and each produced a successful end result. Sketch 2 shows the

circuit and position of components. Photos 6, 7, 8, & 9 show details of the circuit board assembly. The circuit board material is actually called “Vero Board” and is available from Jaycar or Dick Smith. The headlights are 3 mm white LEDs and the number board lights are 0.8 micro LEDs from DCC Concepts or Gwydir Valley Models.

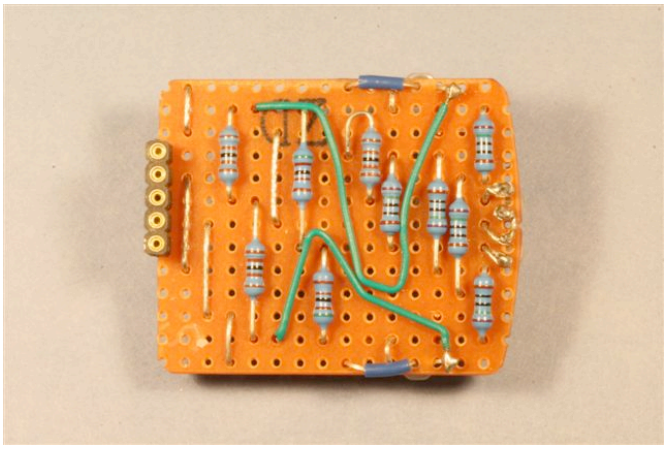


Photo 6. Circuit board.

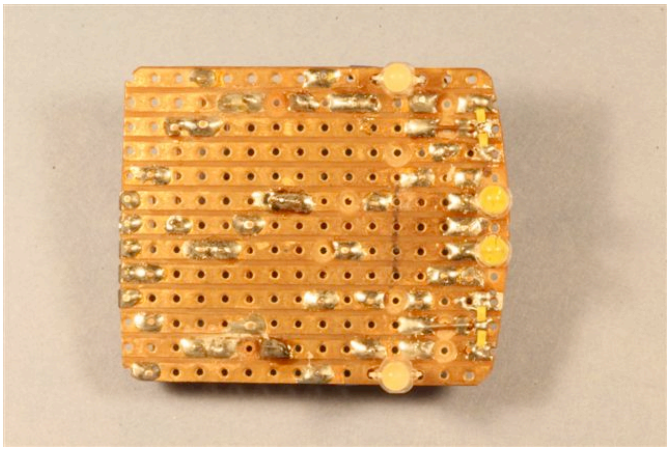


Photo 7. Circuit board.

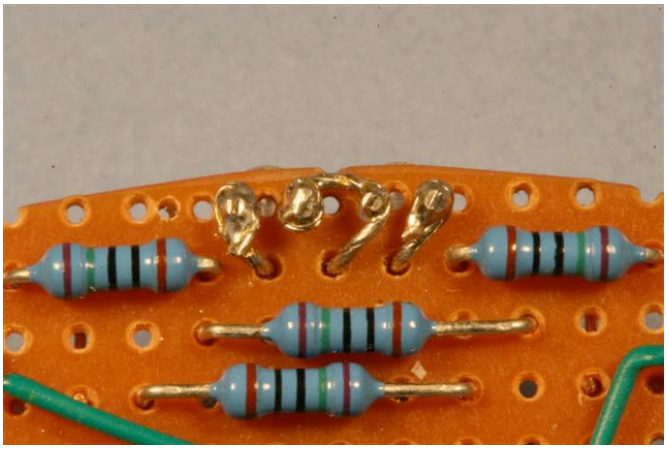


Photo 8. Circuit board.

In the case of a MK I loco, for the two marker lights at each end use the 3 mm red/ white bi-colour LEDs from DCC Concepts. In the case of a Mk IV loco, for the four marker lights at each end use two red, and two white 3 mm LEDs. The position of the LEDs on the circuit board will need to be confirmed from the hole positions in the end and roof panels and 0.8 mm holes must be drilled in the circuit board to pick up the tails of the LEDs. Sketch 2 shows a diagrammatic representation of both the Mk I and Mk IV locos but note from the numbered grid lines that the MK I and MK IV marker lights are in slightly different positions.

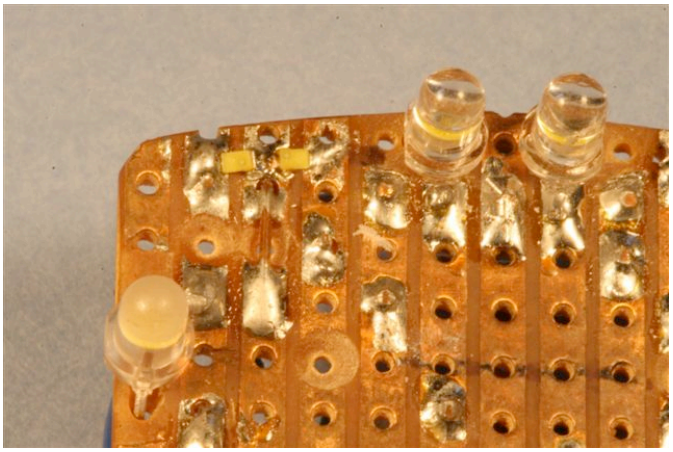


Photo 9. Circuit board.

Cutting breaks in the copper “tracks” on the circuit boards is best done by twirling a 2.5 or 3.0 mm drill in the fingers. Photo 9 shows the small crater so formed by the drill when breaking a copper track.

The top L.H. corner of Photo 9 shows the 0.8 mm micro LEDs for the number box lights. The polarity of these micro LEDs is critical, as it is with all LEDs. The polarity of the micro LEDs is identified by a green dot or triangle on their reverse side. To confirm polarity, test each one with a 9 v battery and resistor before installing. Soldering the 0.8 mm micro LEDs requires a very quick and delicate dab with a fine soldering iron. You can expect a 20% or 30% failure rate, but once in place they are quite robust.

When installing the LEDs on the circuit board it is important to test each one with a 9 volt battery and a resistor both before and after mounting to ensure continuity of soldered joints and circuit board tracks.

STAGE 5. INSTALL SPEAKERS.

Refer to Photos 10, 11, & 13 for details of the speaker installation.

The speakers are the “28 mm” speakers from the Model Railway Craftsman at Blacktown. These speakers produce a good sound and are already fitted with an enclosure, hence saving the fabrication of an enclosure or baffles.

The speaker in the long hood is clamped in a bracket made from ¼” wide brass strip, a thick piece for the leg of the bracket and a thin piece for the circular clamp so that it can be formed as shown and secured with a 10 BA screw. The radial position of the clamping screw is important, so that the screw and nut won’t foul the footplate or body sides.

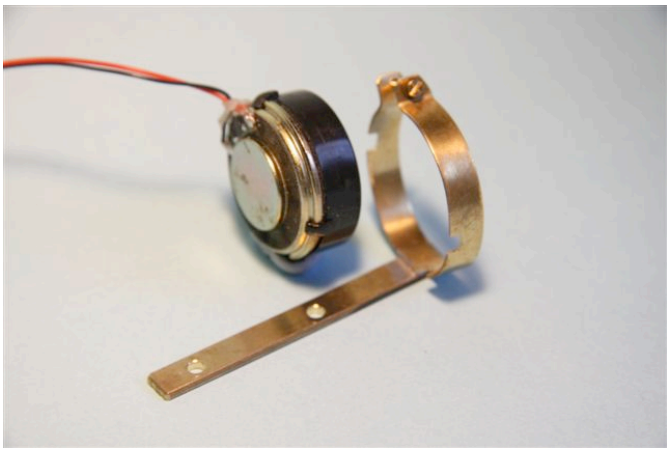


Photo 10. Speaker and brass bracket.

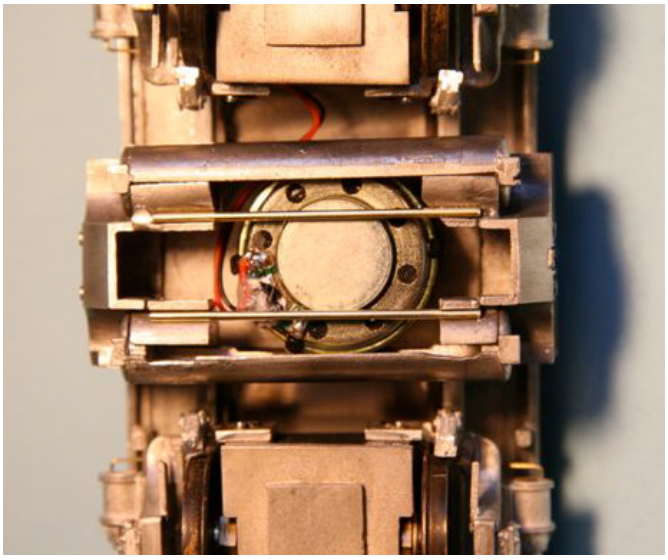


Photo 11. Speaker in fuel tank.

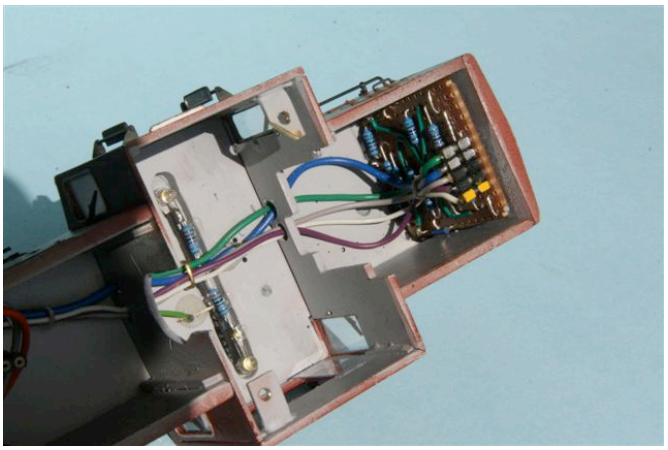


Photo 12. Cab lighting.

Photo 13 shows the long hood speaker in its installed position. Take care here, because the clearances between the circuit board, speaker and gear tower are very fine. The leg of the speaker bracket is at an angle to the circular clamp, so that when it's installed the leg misses the slot for the decoder. The leg is screwed into the roof panel with two 6 BA screws in tapped holes.

Note that it will help to determine clearances when assembling the components into the body shell to leave off one side of the long hood until a later stage, as also shown in photo 13.

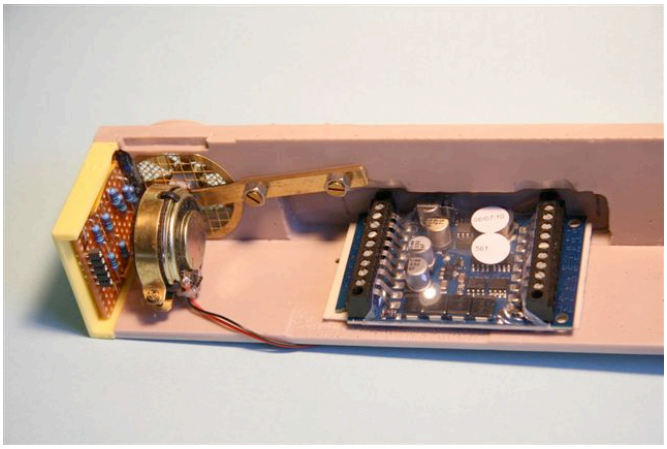


Photo 13. Speaker and decoder in long hood.

Photo 11 shows the second speaker installed in the fuel tank, facing downwards towards the track. The Mk I locos with the small fuel tank require quite a bit of the tank to be relieved to house the speaker but this is not externally visible. The Mk IV locos with the larger fuel tank are easier in this regard. The speaker is secured to the top of the tank with double sided tape. As a precaution, a couple of pieces of 1.2 mm brass wire were glued across the bottom of the tank should the tape fail.

STAGE 6. FINAL ASSEMBLY AND WIRING.

The circuit boards are shown in their installed positions in Photos 12 & 13. They are located in position by the LEDs for the head and marker lights, which should be a light push fit into their respective holes. Ideally, the LEDs should just project through the end panels to form a lens in the right position.

The short hood circuit board is held in position by a piece of double sided tape and the long hood circuit board is held in position by a tiny block of foam wedged between the speaker and the circuit board (not shown in Photo.13). The cab lights and their resistors are shown recessed into their slot in Photo 12. The cab lights are 3mm white LEDs.

The two tapped brackets shown in Photo 12 at opposite diagonal corners of the cab are for securing the body to the chassis. They pick up two 6 BA screws from below the footplate, one of which will go right through the loco jacking bracket.

Photo 13 Shows the Loksound decoder in its correct position, secured by two strips of double sided tape. Note that the decoder will only fit in one way as shown, as it needs to nestle around the universal joint on the drive shaft. Be sure to check for adequate clearance during assembly.

Photo 14 shows the completed and wired loco. The wiring was done as per the wiring diagram, sketch 3.

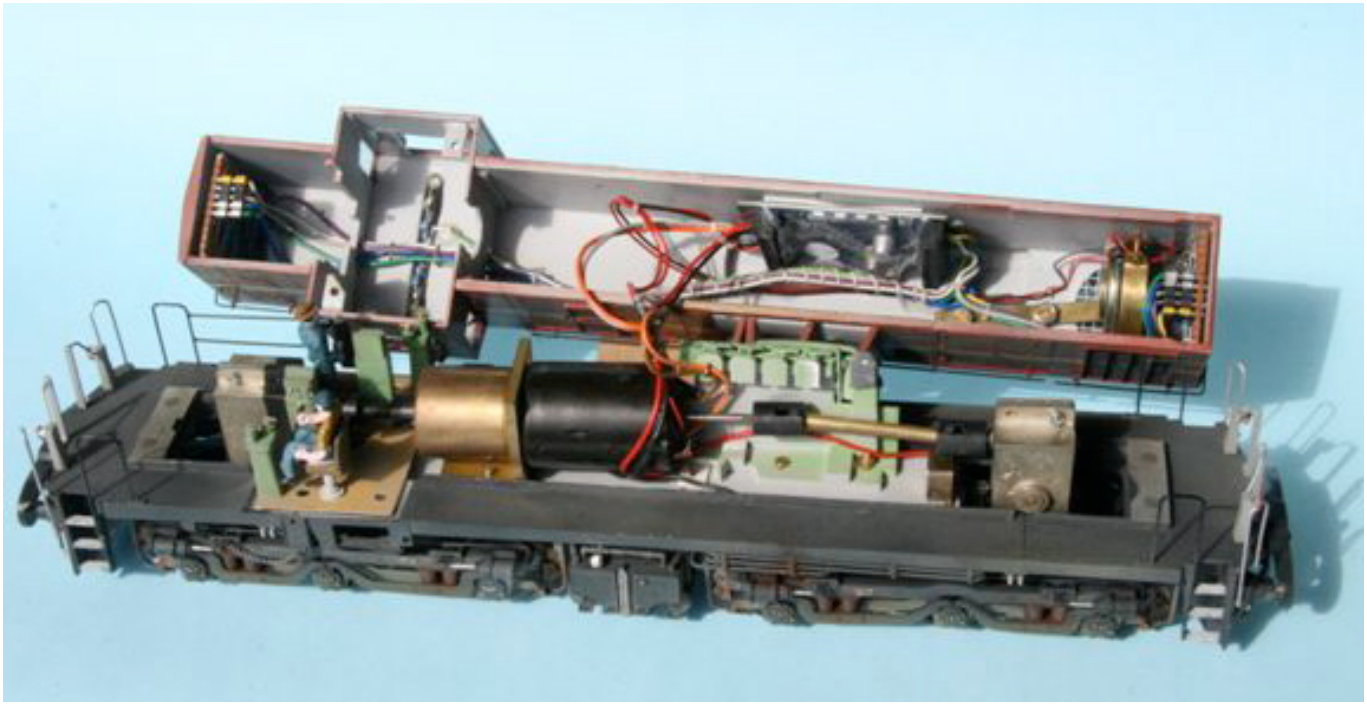
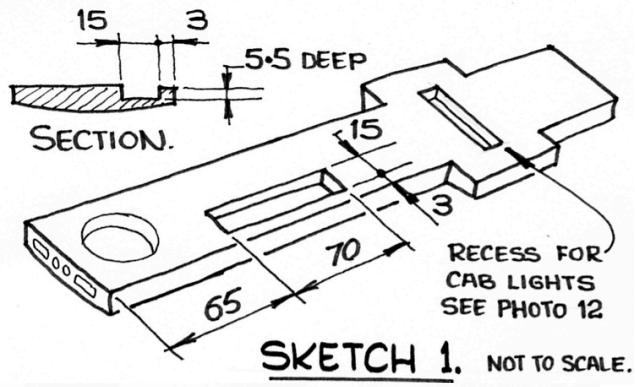
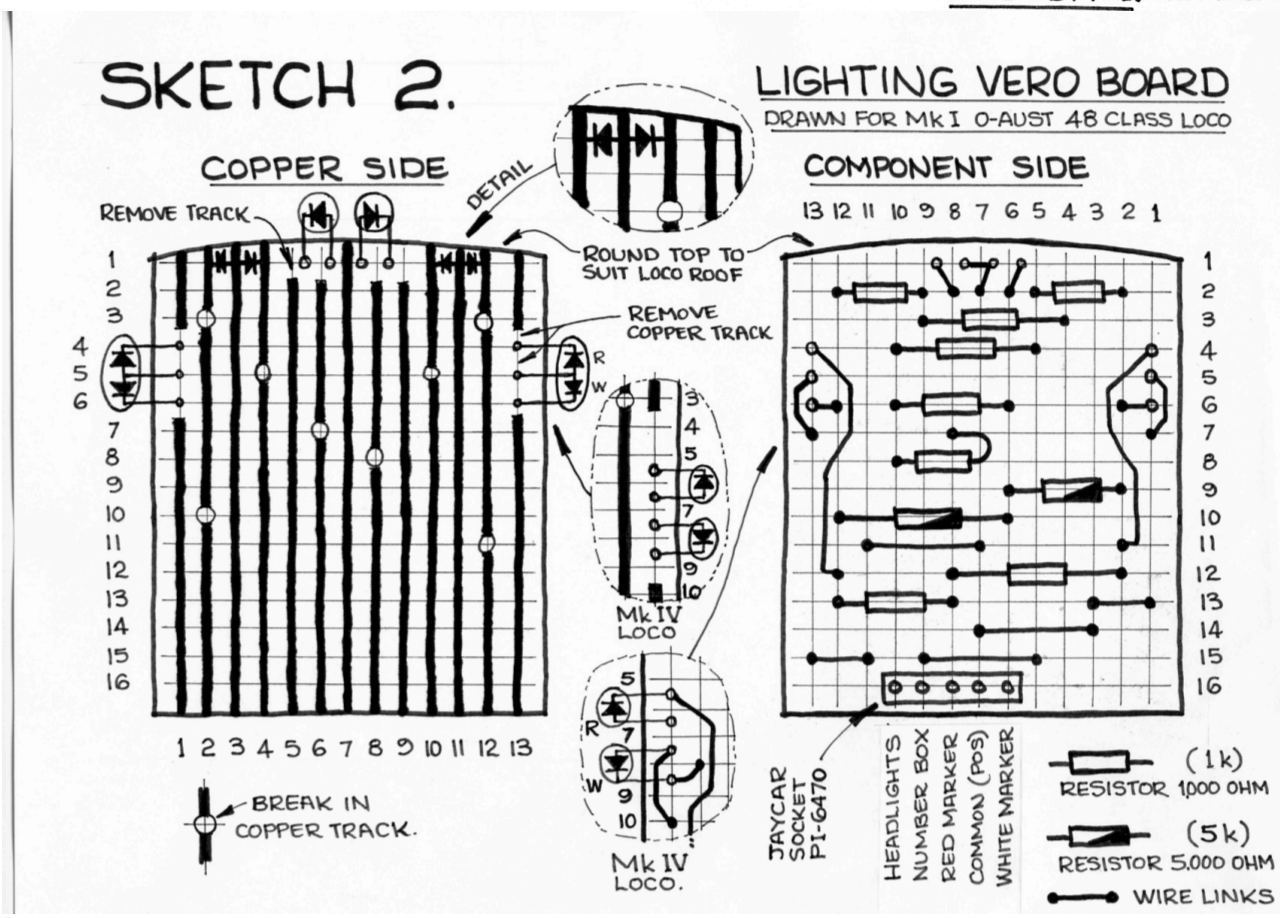
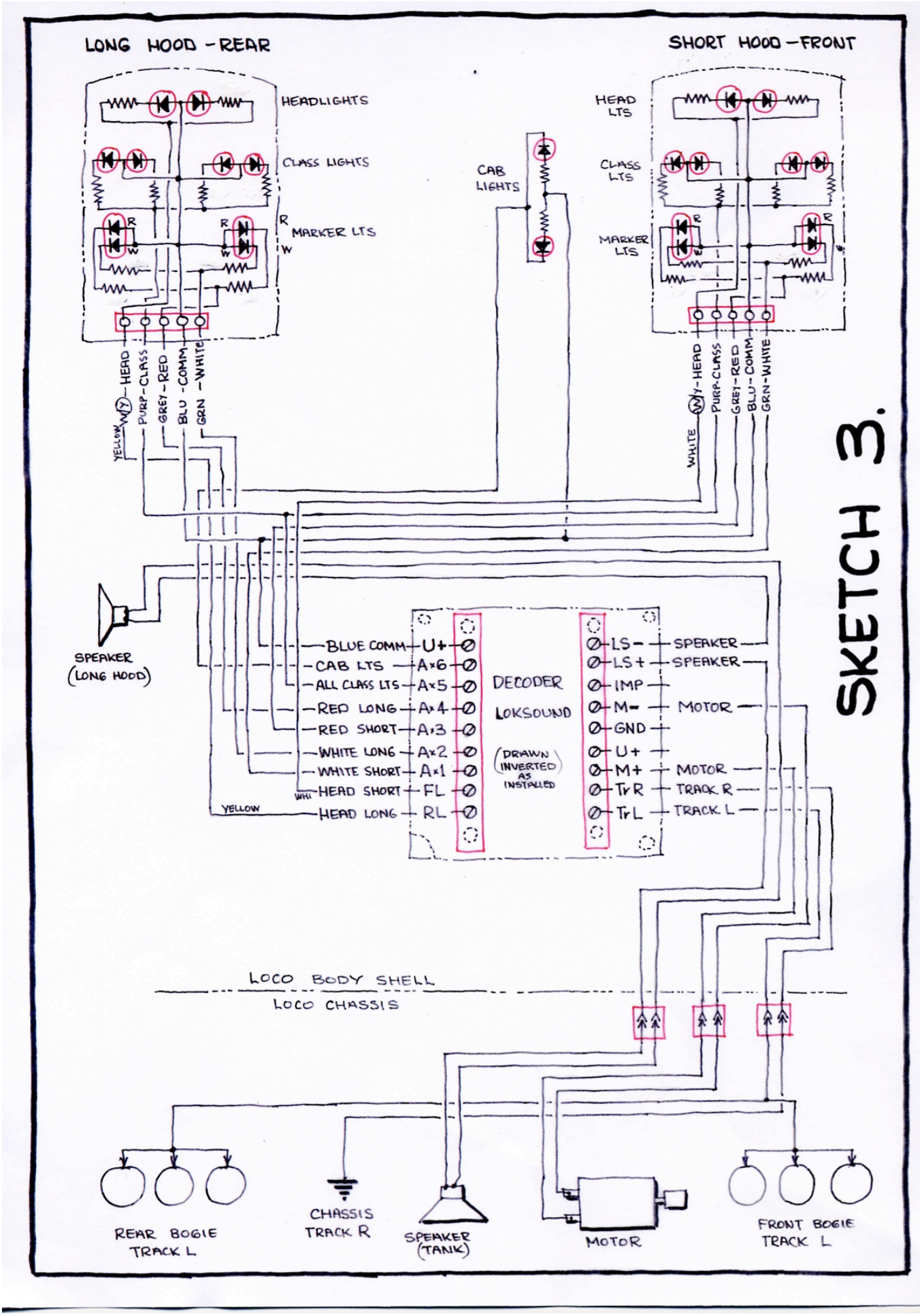


Photo 14. Completed loco.

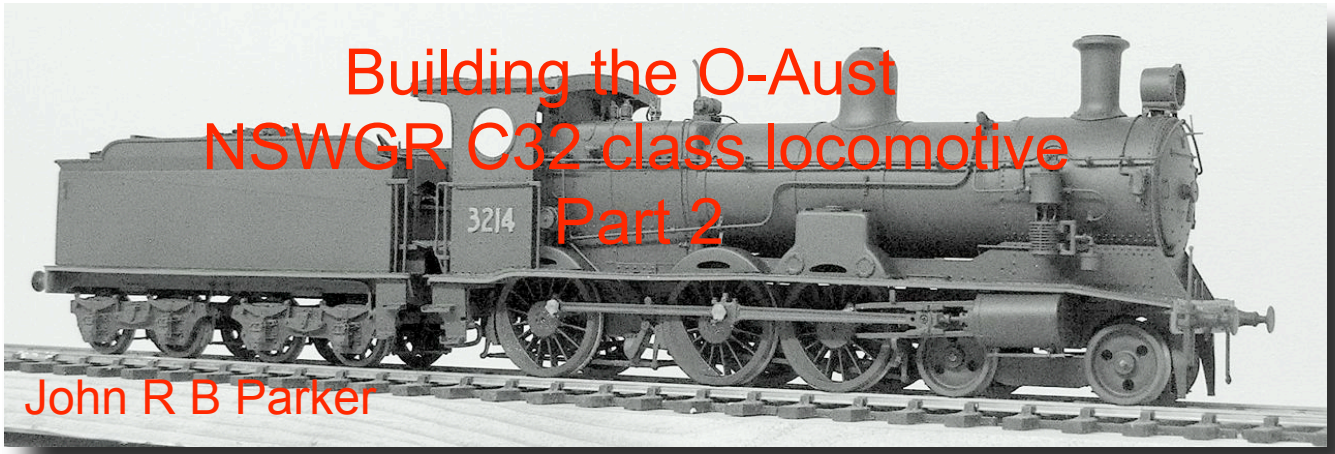
The connections to the circuit boards were made with plug in connectors, Jaycar Part No.PI-6470. The same connectors were used on connections between the body and chassis so that the body can be removed, but these connectors are hidden in photo 14.






LONG HOOD - REAR
SHORT HOOD - FRONT
HEADLIGHTS
CLASS LIGHTS
MARKER LTS
CAB LIGHTS
HEAD LTS
CLASS LTS
MARKER LTS
Y - HEAD
PURP - CLASS
GREY - RED
BLU - COMM
GRN - WHITE
WHITE
SPEAKER (LONG HOOD)
BLUE COMM
CAB LTS
ALL CLASS LTS
RED LONG
RED SHORT
WHITE LONG
WHITE SHORT
HEAD SHORT
HEAD LONG
YELLOW
U+
A×6
A×5
A×4
A×3
A×2
A×1
FL
RL
DECODER
LOKSOUND
(DRAWN INVERTED AS INSTALLED)
LS -
LS +
IMP
M -
GND
U +
M +
Tr R
Tr L
SPEAKER
SPEAKER
MOTOR
MOTOR
TRACK R
TRACK L
LOCO BODY SHELL
LOCO CHASSIS
REAR BOGIE TRACK L
CHASSIS TRACK R
SPEAKER (TANK)
MOTOR
FRONT BOGIE TRACK L
SKETCH 3.

Building the O-Aust NSWGR C32 class locomotive Part 2



John R B Parker

Part 1 of this article in the previous issue of 7th Heaven, (No. 20) finished with the following words…

"The point of all this is to overcome the difficulty of getting the light to turn through 90 degrees. If it fails it will be necessary to revert to the fiddly version mentioned earlier. I am afraid you are going to have to wait for Part 2 to see how it all worked out…"

Well it did fail, but there was a simpler solution. It is detailed here with all the other information you need to make the lights and sounds work correctly on your 32 class loco.

The solution to the challenge of the locomotive marker lights ultimately proved simpler than expected, however this only came about after trying out a number of less successful approaches.

Take a short length, (about 12mm) of 2mm diameter plastic fibre optic rod and carefully file a 45 degree chamfer on each end. Finish off by polishing the ends with finer grades of abrasive films. I have also found 4 sided abrasive blocks designed for finishing finger nails very cost effective. Hold the fibre in a padded vise and cut it into two equal halves using a very fine saw blade. Don't worry if the cut is not completely square at this stage.

Insert the 45 degree end of the fibre rod through the previously drilled hole in the side of the marker light casting, making sure it is aligned towards the front. The 'light rod' can be glued in place using a clear 5 minute epoxy applied through the front of the casting. When dry this holds the rod securely in place and also forms the marker light lens. Don't be tempted to use 'super glue' as it may react with the fibre optic rod. Allow at least 24 hours to dry completely and then shorten the protruding rod to 3mm using a nail file and the foam block mentioned above. Photos 1, 2 and 3 illustrate this step.

2mm diameter holes are drilled in both sides of the boiler to accept the two marker light units and the light assembly which can be made by following photographs 4 to 6. Note that the formed LEDs are both left and right hand. The centre lead is positive (ultimately connected to the blue decoder wire). The shortest lead, the white LED is at the bottom and the longer of the two outer leads, the red LED is at the top. A piece of matrix board 3 holes high and 7 holes wide, 4 x 1000 ohm resistors, two short pieces of wire and a 3 way piece of connector strip make up the assembly which will be inserted in the boiler along with the two decoders. The assembly measures 75mm from the face of the matrix board to centre line of the LED's.

Photo 1. Marker light.

Photo 2. Marker lights.

Photo 3. Marker light.

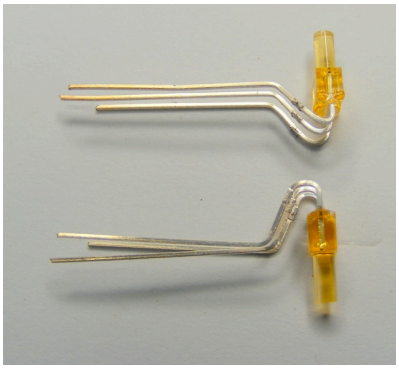


Photo 4. Marker lights LEDs.

Photo 5. Marker light assembly.

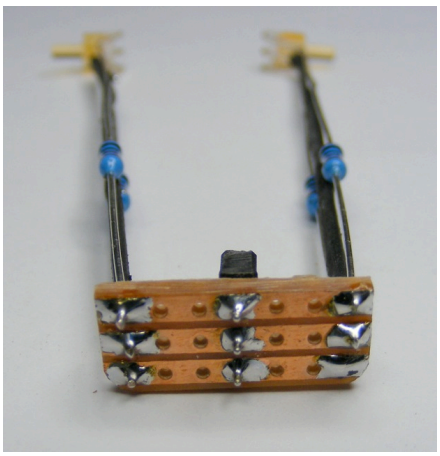


Photo 6 Marker light assembly circuit board.

Smart Firebox

The Tsunami decoder's Smart Firebox feature is used which requires 2 LED's, both yellow and red. For simplicity I have used the same 'lighthouse' LED as used for the marker lights. The LED is slightly modified by reducing the length of the projection and filing a 45 degree chamfer facing towards the front. The photographs 8 and 9 are largely self explanatory. The matrix board is 23 mm wide, (9 holes) and 35 mm high (13 holes). Note particularly that two copper tracks are cut underneath the resistors. The LED is mounted with short lead (yellow) on the left and that the left hand resistor is 2200 ohms whilst the other resistor is 1000 ohms. This whole assembly will fit in place behind the firebox, the light effects visible through the previously drilled hole as "Fiireman

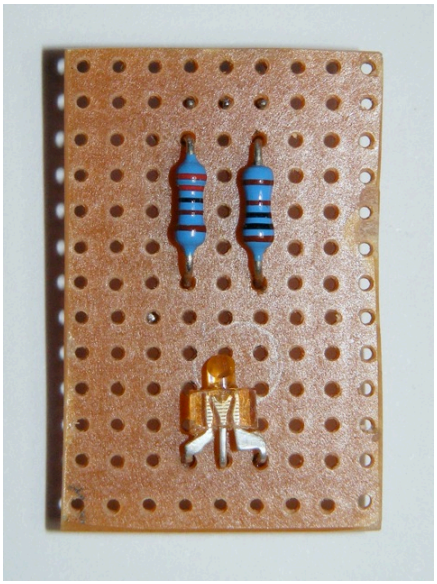


Photo 7. Firebox circuit board.

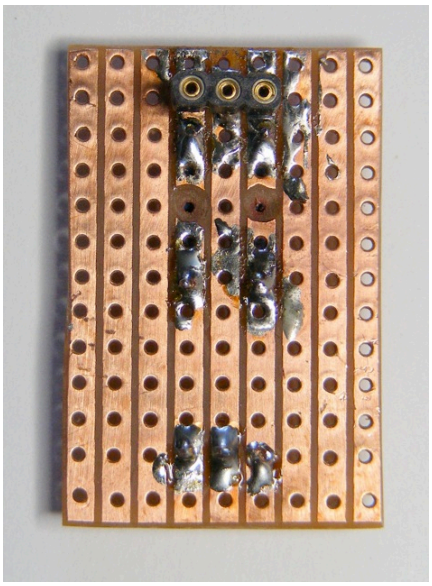


Photo 8. Firebox circuit board.

Fred" shovels coal through the opened firebox door.

Headlight

Once again the pictures tell the story better than words. The piece of matrix board was originally 4 holes x 4 holes about 10mm square. Note that it is essential that a space between the copper tracks is in the centre of the board. This ensures that the LED (3mm Prototype White) is centrally mounted. A 1000 ohm resistor is used, it will just fit. The headlight assembly can be connected using very fine two core cable salvaged from cheap headphone leads or by using the headlight casting itself for one side and black insulated wire wrapping wire for the other. The wire wrapping wire also simulates the conduit as mounted on the boiler. Don't forget to insulate the interior. The headlight lens is from the MV Products range, part number L408.

Photo 9. Headlight LED.

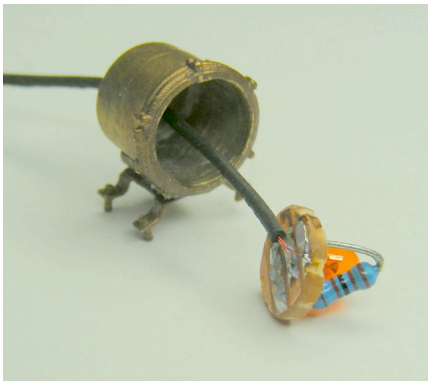


Photo 10. Headlight

Photo 11. Headlight lens

Tender Light Assembly

(See also 7th Heaven No.20). The matrix board is 50mm wide (19 holes) and 20mm high (7 holes).
All resistors are 1000 ohms and The LEDs are mounted with the shortest lead (white) on the left hand side. There is no requirement to cut any tracks.

Programming
If you follow the wiring diagram above you will note that both decoders can be unplugged from their power source (the track). This makes the initial programming a little easier.

DecoderPro will simplify the programming further but it is not difficult to change individual CVs as follows. At this stage the decoder's default number of 3 has been retained. You can of course change the decoders to respond to the actual locomotive number as required. The functions are allocated as shown in the table so that all lights will operate independently.

Plug in the TCS FL4 (leave the Tsunami unconnected). Use the Program Track function to make the following CV changes to the FL4.

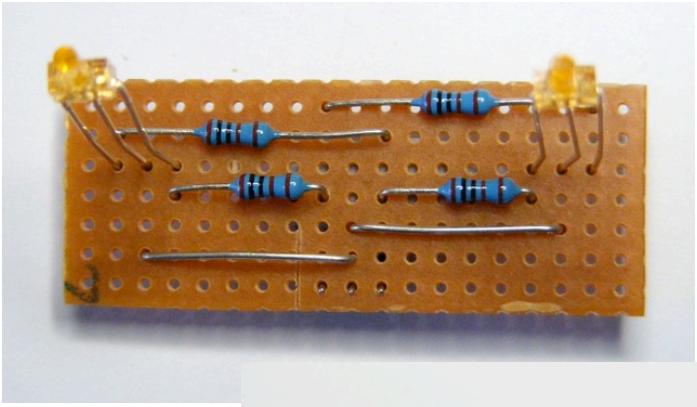
CV 35 = 0
CV 36 = 0
CV 37 = 4
CV 38 = 8
CV 39 = 64
CV 40 = 128
CV 16 = 3

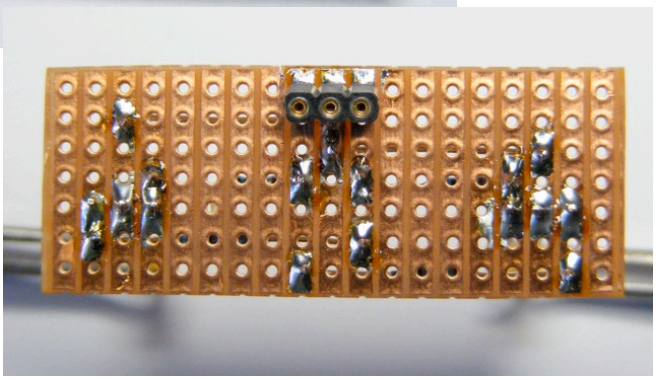
This last change locks the decoder. If you need to unlock it at another time change CV 15 also to 3.

Disconnect the FL4 and connect the Tsunami making the following changes.

CV 33 = 65
CV 34 = 65
CV 49 = 15
CV 35 = 48
CV 51 = 142
CV 52 = 158
CV 36 = 4
CV 37 = 16
CV 38 = 32
CV 41 = 0
CV 42 = 0
CV 43 = 24
CV 115 = 1 (whistle) (0-5)

Both decoders can now be connected and the locomotive's test run can commence.





Photos 12 & 13, Tender circuit boards.

Functions

FO (f)	Headlight on/off
FO (r)	Headlight on/off
F1	Firebox effect
F2	Whistle
F3	Short Whistle
F4	Steam Release
F5	Loco White Marker Lights
F6	Tender White Marker Lights
F7	Loco Red Marker Lights
F8	Tender Red Marker Lights
F9	Water Fill & Dim Headlight

Extra Components

(Including those mentioned in Part 1)

1 x Soundtraxx Tsunami K27 Steam Decoder
(Light Steam can also be used)
Provides motor control and dimmable headlight plus rear tender light (if fitted)
Model Railroad Craftsman

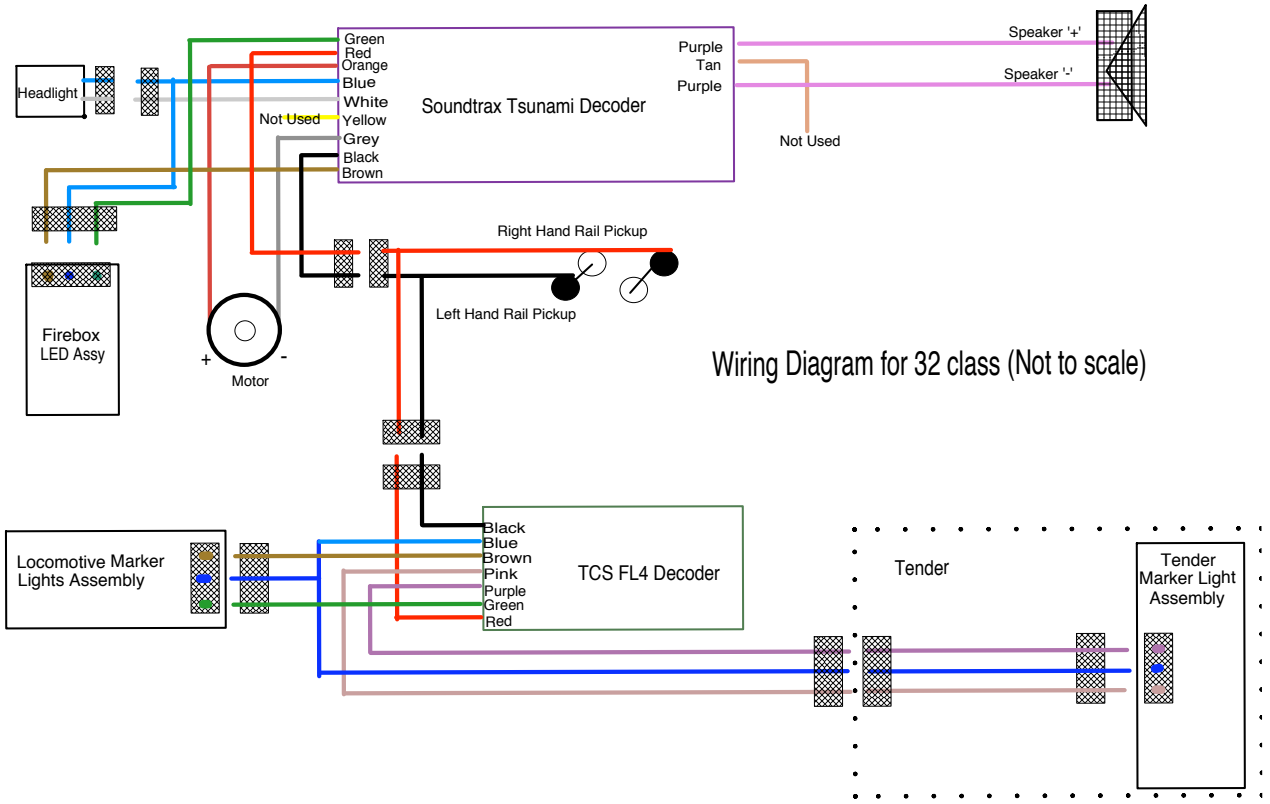
1 x TCS FL4 4 Function lights only decoder
Provides for the control of both red & white marker lights independent of headlight operation and locomotive direction.
Model Railroad Craftsman – Litchfield Station

1 x Speaker round High Bass 27mm 8 ohm
Part # SP-27RHB-08
Litchfield Station

1 pkt. of 6 2mm Lighthouse type Bi Colour LED
(Red & Prototype White with common positive lead+ 6 x 1000 ohm resistors. Need 5).

1 pkt. of 6 3mm Prototype White LED
(Need only 1).
DCCconcepts

2 x 32way Socket strips Part # PI-6470
Cut to length to provide 3 x 2 way plug and sockets and4 x 3 way plugs and sockets.
1 pkt of 8 2200 ohm resistors (need only 1).
Part # RR052
1 x Matrix Board Part # HP9542
Jaycar



Annual General Meeting

The 2009 Annual General meeting of The Aus7 Modellers Group Incorporated will be held on Sunday 12th July at The Valley Heights Locomotive Depot Heritage Museum. The museum opens at 10:00 and the meeting will commence at 11:00. At the conclusion of the meeting members will be given a talk on the history of the depot and its preservation, followed by a guided tour of some areas not normally open to the public. A special admission rate of $11.50 for non Rail Transport Museum members has been arranged. Just mention Aus7 when you arrive. RTM members will have free admission on presentation of their membership cards.

Agenda

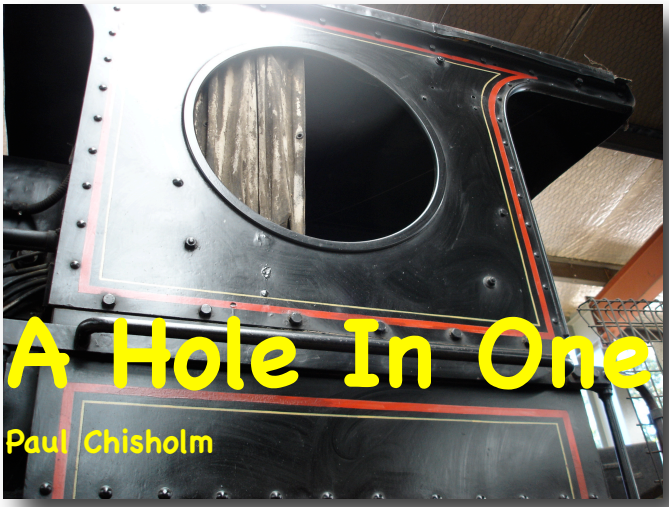
1. Election of office holders:President, Vice President, Secretary, Treasurer & 7th Heaven Editor.
2. Presentation of financial accounts
3. General Business

Any financial member of the AUs7 Modellers Group Inc. is entitled to vote at the meeting. Proxy voting will be allowed and a form for this purpose may be obtained from the Secretary or downloaded from the administration section of the Aus7 Modellers Group Website at http:/www.aus7modellersgroup.org and such votes can be used at the AGM by another financial member. Anyone member attending is limited to five proxy votes.

Handy Hints from An Old Blokes Workshop

You can make your own square headed bolts from ordinary brass or steel straight pins. Using your open ended pin vise, find a large square nut that is a tight fit on the open end of the pin vise. My pin vise has a 3/8" knurled handle and a 3/8" square nut is a nice tight fit. Place a straight pin in the chuck nice and tight, lay the whole lot on the bench with the pin head resting on a scrap piece of timber about 5mm thick. Using a sharp fine file, give the pin head two strokes, turn the pin vise to the next flat face of the nut and repeat the process until you have a pin head with four flat sides. If you want to be VERY smart, find a hexagonal nut the right size and produce a pin head with six sides!

Bruce Lovett



A Hole In One

Paul Chisholm

The O-Aust 32 is a great kit. Construction is straightforward and the diagrams with numbered instructions ensure success if followed carefully. It also has plenty of scope for enhancement with lights and sound as the article by John Parker clearly demonstrates. However, in any model there are bound to be features with which the more pedantic of us will find fault. In this case it is the porthole cab window.

When constructing any new kit I make a practice of comparing it closely with photographs and plans and while doing this with the 32 something about the cab just didn't seem right. After puzzling for some time I began to think that the porthole was too small and reference to the data sheet drawing seemed to confirm this. However to be absolutely certain, on my next visit to Thirlmere I measured the window on 3214. Sure enough, it was larger than that on the kit. The variations were

Inside diameter model – 25 ¾" prototype – 28"

Outside diameter model – 29 ½" prototype – 30 ½"

Now you may think this insignificant but the 2 ¼" variation for the inside diameter of the porthole in 7mm scale equals 1.31mm which is more than enough to be apparent. Depending on your point of view an advantage or disadvantage of working in 7mm is that such seemingly small discrepancies do make a visible difference.

This led to me taking a look at my 50 class loco as well. Its porthole measured out as larger than the 32 kit but I don't know how close to the prototype it is. You would think that the porthole would be the same for both but given the NSWGR penchant for minor variations I wouldn't guarantee it. I will check on that during my next visit to Thirlmere.

So, what to do? The choice was to ignore it or enlarge the porthole. My first inclination was to forget all about it but these things have a way of niggling away at you and I would even find myself waking at night thinking about it. Yes, I know, I need to get a life.

The crunch came when I mentioned all this to a modelling colleague who was also constructing a 32. He is a man of action and decided straight way to do the modification. What choice did I have but to follow his lead. Should you be as crazy as us here is what you need to do.

1.Get yourself a set of dividers that have a fine screw adjustment and can take a scriber point in both arms.

2. Set the radius to 8.88mm = half of 30 ½" and scribe a circle in 0.010 styrene until a disc is cut out.

3. Reset the radius to 8.17mm = half of 28" and keeping the same centre scribe until a circular ring emerges.

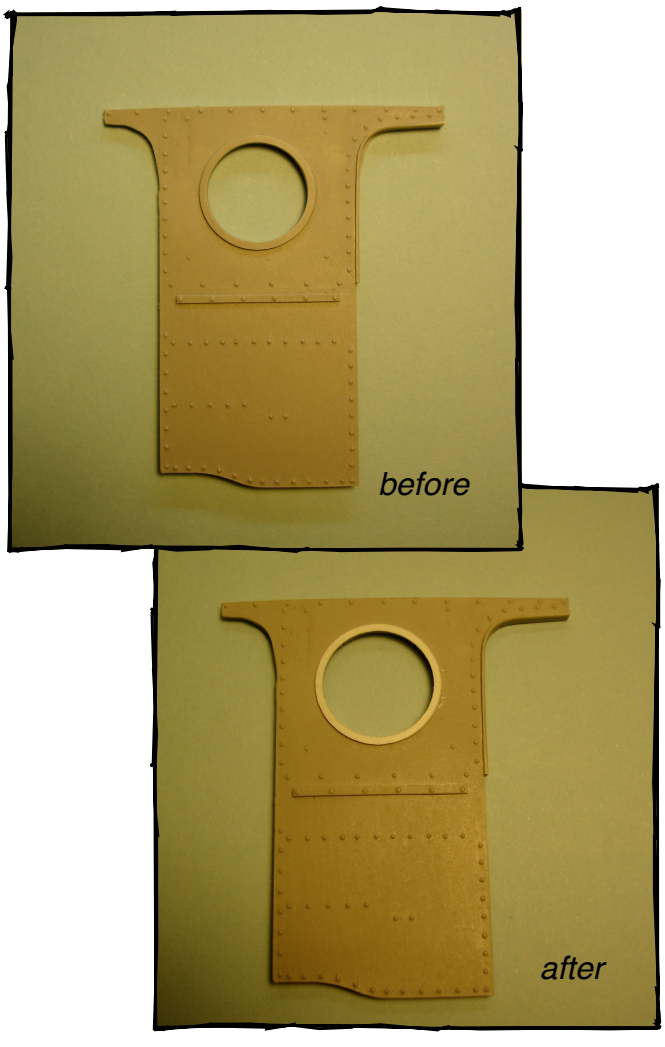
4. Place the new circular bead around the original porthole opening and mark how much material needs to be removed.

5. Using a large broach or a round file carefully remove the excess. Checking frequently as you go.

6. When satisfied locate the new porthole surround and set in place with small amounts of superglue.

Now, after all this you may be the only one who will ever notice a difference but you will have the satisfaction of knowing it is right!

As my friend said about this little escapade, "We are a strange lot aren't we?"



Essential Modelling Tools

The first in a maybe series of articles giving advice on modelling tools for the serious modeller, written by a professional railway modeller (who wishes to remain anonymous).

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#1 – The Hammer

Most modellers are quite particular about their tools, and their tool boxes tend to contain the tools they have used over time which they have found most useful. Their tools are normally a fairly motley collection which have come from different sources at different times, and it goes without saying that, while no two modellers toolboxes would have the same contents, there are some tools which you would find – or should find – in every toolbox.

When I am asked to advise a new modeller on tools that he or she ought to buy the first thing I say is "hammer", and I don't mean some small jewellers toy or the sort of thing you might see in a make-up bag, I'm talking your common or garden carpenter's hammer – something with a bit of weight in it.

Now many modellers think that modelling is all about delicate placement of parts, finessing of components and gentle and methodical construction sequences. While these abilities are often required to put together an award-winning model, occasionally something goes wrong, and the more time and trouble you take to correct it, the worse it gets, until you get to the stage where you realize it is completely beyond recovery, and all the time you spent on the model until this problem occurred has been wasted, along with all the time you have spent trying to correct the defect. This is where your inexperienced modeller will put the model away in a box in a cupboard, to be kept ostensibly to repair "one day", but in fact to be thrown away in a years time when the trauma has been forgotten.

NO NO NO NO NO!!!

That model has teased and tortured you – it got you interested, had you spend hours devoting yourself to it, and then, when you weren't expecting it, created a minor problem for you, which it then allowed to grow into a massive ball of frustration and torment. The thing deserves to be punished, and a few good whacks with a hammer are exactly what the doctor ordered.

Indeed, exactly what a doctor WOULD order: bottling up all that stress inside you, by just accepting defeat and putting the model quietly into a cupboard, may end up putting you in hospital. It is far better to dispense a bit of "hammer therapy" for your own health and sanity.

So the next time you go down to your local hobby shop, go up to the man behind the counter and say: "I'm here to buy some more modelling tools – give me the biggest hammer you've got!"

Cheerio for now and happy modelling

Ten Airbrush Tips

by Bruce Lovett

1. After using Floquil, Scalecoat, A&R, Dulux acrylic or standard lacquer, Humbrol or similar paints, THOROUGHLY clean the airbrush by spraying lacquer thinner through it until the spray is clear.

2. Clean the outside of the airbrush with the same thinner and wipe dry.

3. If spraying acrylics such as Tamiya, THOROUGHLY clean the airbrush by spraying water through it until the spray is clear. IMPORTANT. Then spray methylated spirits through the airbrush to absorb any moisture which will cause rusting of the steel needle.

4. Examine the spray regulator (end cap with 3 holes in the side).If paint has built up inside, soak in appropriate thinner until clean, wipe dry and refit.

5. When refitting spray regulator, head and tip, needle chuck, air hose etc. place a small amount of light oil on the threads before screwing on the part.

6. After lengthy spraying jobs, remove and check the needle for paint buildup, clean and refit.

7. If the airbrush is dropped and the spray regulator or needle bent, replace immediately otherwise there could be damage to other parts.

8. When spraying is finished and the airbrush cleaned, ALWAYS fit protective cap on the spray regulator.

9. Using a car spare tyre for an air supply could create problems as the tyre may contain oil and moisture which could end up on your model. Cans of air, which is actually a gas, or better still, a mini compressor designed specifically for air brushing, will deliver clean air at a constant pressure and last a long time.

10. The airbrush is a precision instrument like a micrometer or vernier caliper and should be treated with respect. Look after it and it will look after you.

PLEASE SUPPORT AUS7 BY

* RENEWING YOUR MEMBERSHIP
* WRITING AN ARTICLE FOR 7TH HEAVEN
* SENDING A PHOTO OF YOUR WORK
* ATTENDING THE AGM

Showcase

Send in a photograph of your work and let us be inspired.

Another fine model by Matthew Ratcliffe. The ABV was constructed using styrene for the sides. The roof is made from 0.4mm plywood which was curved and glued in place. The underframe, axle box/w irons, grade control, brake shoes, brake gear and brake levers are Matthew's own castings. The rivets are from Tichy Train Group. The brake cylinder is from Kerroby and the wheels are from Slater's.

Winner of the scratchbuilt section of the O-Aust trophy at the recent Forum was Paul Chisholm's hotel built for the citizens of Stringybark Creek.

Commercial News

Trevor Hodges

Economic Conditions

For those of you who have never had the opportunity to attend one of the Modellers Forums held at North Sydney Leagues Club, one of the regular items on the agenda is a commercial report provided by manufacturers and retailers in attendance. At the most recent Forum it became clear to those present that world economic conditions were having an impact on our hobby and chosen modelling scale. It is a simple fact that a large proportion of the parts and manufacturing processes involved in the production of the kits we buy are sourced from overseas. Even at the best of times producing kits can be a fraught exercise: the uncertainty wrought by the recent global economic turmoil has simply added to the difficulty of the production process.

Not one manufacturer asked for special consideration or even hinted that a particular kit or project was being cancelled due to the economic conditions. If there was a theme it was simply this: the manufacturers of kits for our scale are committed to continuing the production and delivery of the kits that have been announced for our market, in spite of the economic uncertainty. However what would help greatly is the continued support of customers through sales; if kits are produced and they are left sitting on the shelf unsold then further production becomes problematic. If you tell a manufacturer you'd like to see a particular kit produced, please show your support by purchasing one or two when they go on sale. Manufacturers are adjusting their production and sales strategies to suit the times.

With economic conditions as they are, perhaps now is the very best of times to escape into a hobby such as ours. Buy a couple of kits and enjoy some time at the modelling bench. What better antidote to tough economic times could there be?

David Peterson Modelling Services

David Peterson Modelling Services, PO Box 644 St Ives, NSW 2075, Tel 61 2 9144 1521, Mob 0402 156 048, Email dwpeterson@optusnet.com.au. has advised that production of the NSWGR (Z)12 class 4-4-0 in 1:43.5 is definitely going ahead. David is now at the stage of finalising firm orders through the acceptance of $900 deposits from people intending to purchase a kit. He will be contacting all people who placed an expression of interest over the coming weeks. Kits will be supplied to order and, while there may be some available for direct sale after orders are filled, there is no guarantee of kits being available if no deposit has been paid. The price for pre-ordered kits will be $1750 and at least $1850 for any sold once orders are filled. The kits will be supplied with Slaters wheels and ABC motor/gearbox combination.

Keiran Ryan Models

Keiran Ryan, *Keiran Ryan Models*, 39 Coachwood Cres, Picton, NSW, 2571, (02) 46772462, krmodels@gmail.com & www.7mmkitsnbits.com has passed on the news that the Bogie Milk Tanker (BMT) should be available for sale by the time of the Liverpool exhibition in October and will utilize the Waratah G bogie.

Ornate NSWGR station lamps are being developed. These will be of etched construction and will be able to be lit using fibre optics and an LED. They should be available late 2009. Colour light signals are also being developed for release in mid 2009 in both two and three aspect versions and a kit for working catchpoint indicators should be available for release in June. These indicators will have a cast base, etched head and other details supplied. They will be manufactured to allow them to be made operable.

Lever frames are being developed for lineside use along with an upgraded point and signal crank kit. The lever frames are detail items, they are not operable and as such can't be made to actually actuate signals and points. Standard semaphore signal components will be available as separate items as of July. Upper quadrant, distant, shunt ahead signals and other components will be available along with etched posts. Finally, in addition to the standard 25' tapered post signal kits, a bracketed version will be available from the May.

O-Aust

O-Aust Kits pa_rl_krause@bigpond.com, and via the web site at www.oaustkits.com.au, at PO Box 743, Albany Creek, Qld, 4035, mob 0419680584 anytime or on (07) 3298 6283 between 7 and 9 pm has announced that the 3000 gal Shell tank car kit should be available for sale by the time you read this at $185 per kit. It is hoped that the 5000 gal Shell tank car kit will be available by early June, priced at $235 per kit.

Patterns for the independent BR car are well advanced and it is hoped that the intermediate versions of the FR, BR and CR will be available for sale in time for the October Liverpool exhibition.

The release date for the C30 locomotive kit has been put back slightly and should be available for sale in time for the October Liverpool exhibition.

Waratah Model Railway Co

Waratah Model Railway Company, PO Box 509, Revesby, NSW, 2212 (02) 97851166 charris@nigelbowen.com.au and waratahmrc@optusnet.com.au have announced that

the BWF bogie flat wagon has suffered some production delays, however it is hoped this kit should be available in the second half of 2009. Also expected at about the same time is the 5 ton yard crane and a weighbridge pressure plate. Development of the BD and BDS bogie open wagons continues with these expected to be available in 2010. The whitemetal 2SE bogies, and the brass diamond bogies, which were developed for the BD/BDS and the BWF respectively, are now available to scratch-builders. Finally, development work has started on a kit for the NSWGR HG brakevan, and this should also be available in 2010.

At the last Forum Waratah announced that, for financial reasons, in future it would not be able to continuously stock wagon kits. While couplers, buffers and scratch-building components will be held in stock, wagon kits will be released and then held in stock only in limited quantities. The next wagon to be re-released is likely to be the S wagon.

O-Aust 3000 gallon Shell tank car.

O-Aust 5000 gallon Shell tank car.

Pilot model of the Bergs 41 class diesel.

The O-Aust Trophy

O-Aust Kits is proud to announce that they will once again be sponsoring a modelling competition at the next O Scale Forum on Saturday 31st October 2008

Trophies will be awarded for the best scratchbuilt and the best kitbuilt model.

The rules are as follows

- winners will be selected from models on display at the forum and the modeller must be in attendance
- models must be to 7mm or 1/4" scale
- models must be of Australian prototype, any system or state.
- kits may be from any manufacturer, not limited to O-Aust.
- prize winning models will not be eligible for entry in any future competition
- models may be a locomotive, rolling stock or structure
- competition to be judged by Peter Krause or his nominee

The Aus7 Modellers Group invites you to the

NSW O-Scale Modellers Forum

Saturday 31st of October 2009

Seminar topics will be announced when finalised.

- Modelling Competition (O-Aust Trophy)
- Manufacturers' Reports
- Traders who specialise in O scale

Everyone welcome!

North Sydney Leagues Club
Kamaraigal Room, 12 Abbot St Cammeray
8:30 a.m. sign in for a 9:30 a.m. start

For details ring Keiran Ryan
0409952874 or 02 46772462

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SHELL 3000 TANK

NSWGR C32 LOCOMOTIVE

NSWGR FR COACH (independent) NOW AVAILABLE

Kits Available Now

O-Aust Kits
C32 steam loco, 48 class diesel, 830 class diesel, ACM, FR (ind), S, MRC, UME, BCW, CW, BHG, BCH, BWH, SRC, LLV, MLV, QLX (QR), BBV (QR), K/KA (QR)
Century Models
Z19 loco, D50 loco

For Future Release

O-Aust Kits
C30 tank loco, 44 class diesel, Shell 3000 & 5000 tank, MHG, CR, FR (int), BR (ind&int), HR, EHO DH loco (QR), 1400 loco (QR), Flat Top T (VR), BBV (QR), CJF (QR), K (QR)
Century Models
C30T loco

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