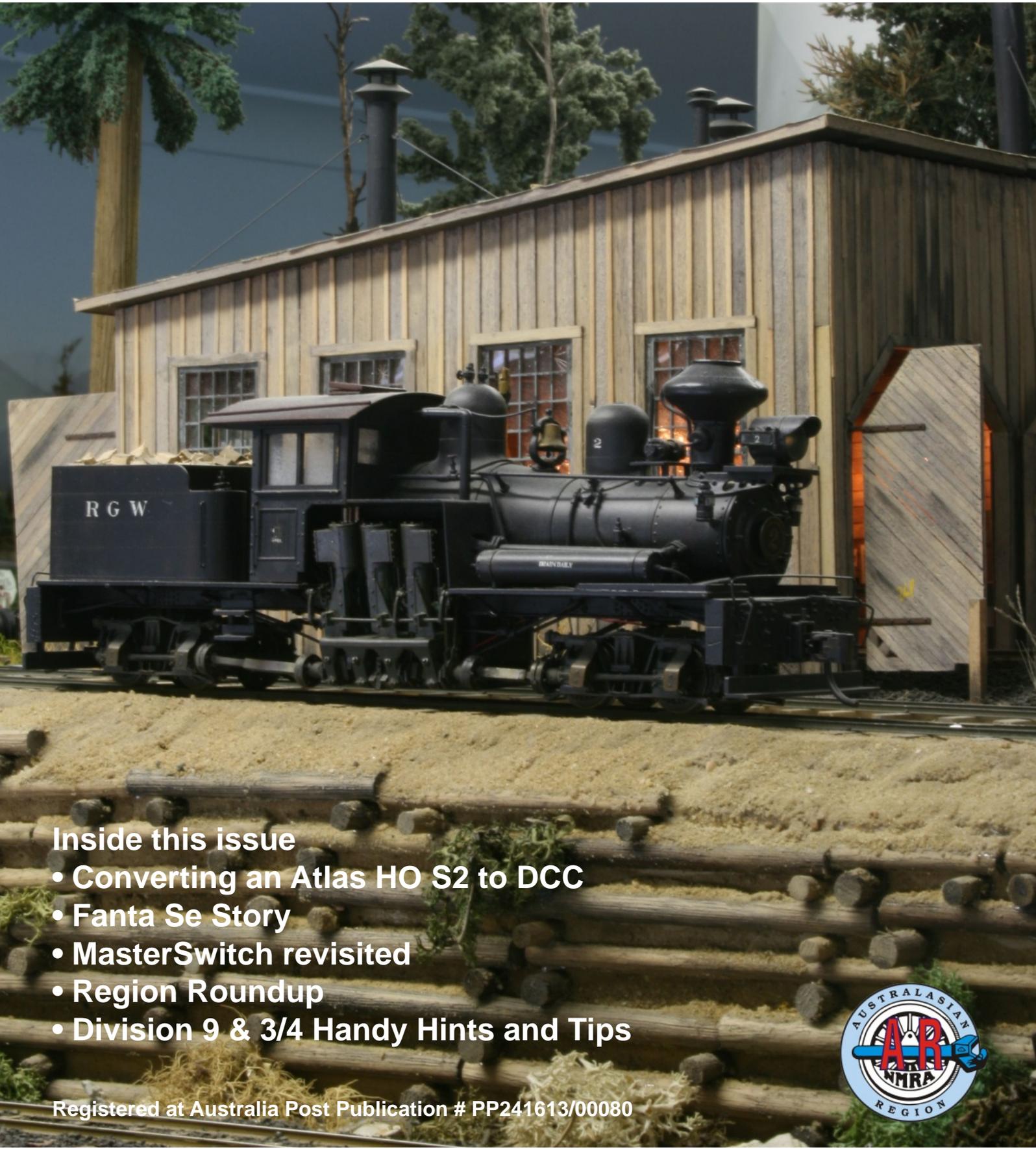


# MainLine

National Model Railroad Association Inc - Australasian Region

Autumn 2007  
Volume 24 No. 1



## Inside this issue

- Converting an Atlas HO S2 to DCC
- Fanta Se Story
- MasterSwitch revisited
- Region Roundup
- Division 9 & 3/4 Handy Hints and Tips

Registered at Australia Post Publication # PP241613/00080



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## Stop Press

### MainLine goes Internet

At the February Committee meeting it was decided to publish MainLine not only as a Hard Copy magazine but also as an electronic version accessed via our web site. This is a trial for one year so we can assess how popular this option is and also to get an accurate idea of the costs associated with this form of delivery of MainLine. Contrary to popular opinion, transmission of large amounts of data is not free. Anyone who has gone over their Telstra broadband limit can attest to this. For the duration of this trial there will be no cost to members for this service.

You may be aware that in the past few months we have had several limited trials of Mainline on the Web. All members will be able to log into a secure area of the our web site [www.nmra.org.au](http://www.nmra.org.au) and, using your NMRA membership number as the password, download a full colour version of Mainline. It is intended to be available in two versions. A viewing only version in low resolution approximately 2 meg in size and there will be a higher resolution version, approximately 6-8 meg, for those who wish to print a copy. We hope to have the electronic version available as you read this. This will be the full version of the magazine. The Committee also decided to have an older Mainline available to all visitors to the NMRA Australian Region Website . This will only be in low resolution and some personal details will be removed. Accurate details of the number of downloads will be kept. The printed version of MainLine will continue to be available, the electronic version is an additional members service. Hope you like it.

## Notice of Annual General Meeting

The AGM will be held at John Saxons May 12th, starting at 3:00pm. Office bearers will deliver their annual reports for acceptance There are no officer elections this year.



Official Publication of the  
National Model Railroad Association  
Australasian Region

Registered at Australia Post Publication #  
PP241613/00080

**Editor:** Kelly Loyd

**Proof Reader:** Greg Harper

**Photographers:** Sowerby Smith, Josh  
Loyd

**Assistants:** All NMRA AR Members

**Article Submissions:** The editor  
welcomes any train related articles,  
photos, drawings, cartoons, letters to the  
editor and other material.

Any submissions can be either emailed or  
"snail mailed". It is preferable that any  
submissions be made using a computer,  
(PC or Mac) Publication of articles  
submitted are at the discretion of the editor.

Cut-off date for urgent material to be  
printed is 30 days prior to publication

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**Advertising:** is limited to the back inside  
cover of the MainLine. This

change has been made to allow easy  
access as a retailer Directory for NMRA  
Members, and reduce costs to retailers,  
following the lead of our parent  
organization's magazine (ScaleRails).

Retailers who wish to be listed in Mainline  
will be charged a nominal annual fee  
covering four issues of Mainline with their  
advertisement. For more information  
contact the editor.

NMRA Inc.

Advancing the global model railroading  
community through advocacy, standards,  
education and social interaction

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### Photo Credits

#### Front cover

George Paxons On30 Layout - Engine Shed.  
Photo by Josh Loyd

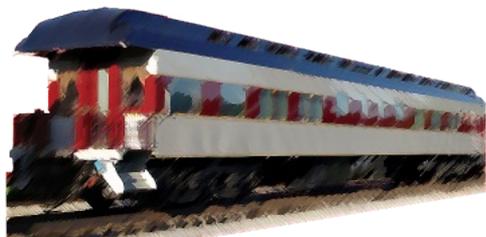
#### Centre photo

John Hughes US Layout  
Photo by Gerry Hopkins

#### Back Cover

First Place Digital Photo from Convention 2006  
Photo by Josh Loyd  
Zig-Zag Railway Top Points Staff handoff  
Photo by Maika Ly





## From The Business Car

Christmas parties in Sydney, and the next day in Taree, were a good start to the holiday season. Members and their partners attended the Sydney meeting organised by Divisional Superintendent

John Montgomery, ably assisted on the day by his partner, Natalie. Gerry Hopkins had organised a People's Choice model display and all the attendees were invited to cast their vote. Somehow Gerry's industrial complex won! Just goes to prove how good a modeller he is. Well done Gerry and to all the other participants. Also, wonderful to see John and Tony Saxon at the meeting as John had only just got out of hospital a few days before following a major operation. With great food and wonderful company, it was a day to remember.

Immediately after the meeting ended, Jenny and I set off north and an overnight stay in Cessnock with our friends, Peter and Barbara Jenson. Pete also moonlights as our Pacific Director and is on the local Committee. The next morning the four of us were off to Taree and the lovely home of Mike and Carmel Bartlett. Mike, as you probably know, is our newest Divisional Superintendent of our newest division, Mid North Coast Division 9. The local NMRA members started arriving soon after and to start the day we enjoyed an operating session on Mike's new layout. Sixty car trains and a really long run. Mixed UP and NSW prototypes were running on the day and I spent a great time running a 60 car train around the layout. Also running was a very long train of wagons behind 2 of the new AD60 Garret models. A magic day. Later we enjoyed a BBQ lunch whilst sitting around their lovely new swimming pool. There was a few mercifully short speeches and I welcomed all the members to the association. The four of us stayed overnight with Mike and Carmel and left mid morning on the Monday to make our way home. One of our biggest strengths as a group is the way we extend hospitality to out of town members. I would like to thank Mike and Carmel for the fantastic hospitality they extended to the four of us during our visit. So don't forget, if you are going to a new city and have a little time up your sleeve contact the local Divisional Superintendent and get more out of your membership of the NMRA. I just wish I could have attended all of the Divisional Christmas meetings.

We have not yet collated all the responses to our members' survey and the final results will be published in the next issue of Mainline. I just received my copy of Scale Rails from the US and if you are not currently a subscriber I would strongly recommend the magazine to you all as it has improved out of sight in the last few months with a new Editor and editorial team. If you have not yet seen a copy, ask to see one at the next meeting you attend. I think you will be impressed.

I mentioned in my last report the passing of one of our members, Ian Hokins, from a heart attack.

I have been helping with the railway side of Ian's estate and it his executor Peter Bone's wish that we dispose of Ian's extensive collection of books (450 and still cataloguing), large collection of trains, kits, parts and a switching layout. These are to be offered exclusively to the members of the NMRA and all proceeds of the sale are to go to the Australasian Region of the NMRA. A very generous donation. I will be conducting a sale on the 15th of April at John Baker's Kellyville home with the help of Divisional Superintendent, John Montgomery. I would like to thank John Baker for his generous help in bringing this event to the maximum number of members by offering his large shed as the venue. The money raised will benefit all the members of the association and in due course I will report to you the Committee's decision on what we will do with the funds that are raised.

Time marches on for us all and I would like to extend our sympathies to both Alan Garbutt and Geoff Nott and their families for the loss of their mothers in the last few weeks. Our condolences also go to David Swinfield whose wife Joan passed away on the 6th of February after a long illness. Division 6 members will remember the excellent meeting held at David and Joan's home a year or so ago and also his layout hosting after last year's convention on the central coast.

Sowerby Smith  
President ARC

# Pacific Directors Report

by Peter Jensen

If I look at the duties of a Director of the NMRA (paraphrased) from the regulations of the NMRA, Directors are responsible for:

1. Developing policies for the benefit of all NMRA members,
2. Maintaining liaison between the Regions and the NMRA via the Regional Advisory Council (RAC),
3. Keeping the NMRA informed of Region issues and desires,
4. Transmitting to the NMRA such recommendations as are made by Region members, and
5. Performing the required duties under US law.

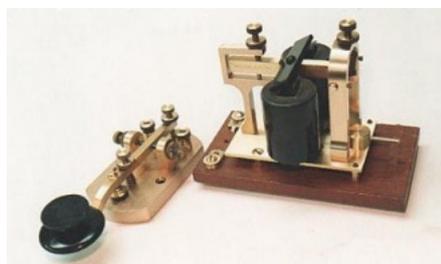
In essence, my main responsibilities are (1) Communications (from, and to, the BOD and Executive of the organisation) and (2) As part of the national Board of Directors, setting policy and direction of the organisation. None of this can be achieved in isolation. To be relevant, a Director must listen to members everywhere. It is then our duty to take this information to the BOD for discussion, and possible action.

To be more effective, I would appreciate your communication, comments and thoughts on any matter that would help make the organisation more effective for all members.

Perhaps the BOD's greatest concern is to grow the organisation. Total membership has remained relatively constant (around 20K) for some time now, despite significant growth in the ABC group (Australia, Britain and Canada). The BOD is introducing programs and services to spark interest to again make the organisation relevant to the modeler. A good example has been the revitalisation of Scale Rails.

It is important that we all talk up the benefits of membership and encourage our modeling mates to become active members of the organisation.

If you have any questions about the national organisation, please contact me.



## Off The Wire - Editorial

The days are getting shorter and the humid February weather will soon be forgotten in the windy month of March. In North America, the onset of Autumn means moving indoors and doing more work on the model pike. We are fortunate in Australia that we don't have the really harsh winter of our North American friends. Perhaps you have a craftsman kit that you haven't started yet. Or

there is that steam locomotive that could do with some super-detailing. Autumn and winter are great seasons for doing these kind of activities. Try relaxing and enjoying some of the other great things in this hobby.

I received an email from a member who had just read the latest MainLine and his comments were that he really enjoyed reading the story behind Ken House's layout. In his words, "The pictures on the web site are great to look at, but it is really good to read the story behind the photos." Why not write a few words about your layout, so we can tell the story to the region and beyond? You may inspire another modeler to make a start - or give them ideas for their own layout. This is the kind of thing that I joined the NMRA for - to learn from other modelers and share ideas.

If you have not yet booked to attend the Australian Narrow Gauge convention, why not consider it? You may not model narrow gauge, but there will be plenty of workshops and clinics on scenery, scratch-building and weathering. I'm certainly looking forward to attending and improving my modelling. You can still register until the end of March.

Congratulations to our Proofreader, Greg Harper and his wife Karen on the arrival of their new son, Anderson.

Next Issue - We will be starting a series from Ted Edwards, a bit of history on the Module Sig from Warren Wormald and more book reviews from Gavin Hince. Look for all the news from the Narrow Gauge Convention.

# Converting an Atlas HO S2 to DCC

By John Parker

## Barren Creek & Santa Fe Railroad

When I purchased my Atlas Alco S2 switcher, my objective was to install a DCC decoder [without sound] and detail the cab interior.

Let's start by removing the body shells. Gently lift all the railings out of their holes in the cab. Then using a very sharp small Exacto chisel blade insert between the cab and walkway floor, gently lift the cab sides out and upwards.

Once you remove the cab housing then the long hood can be gently lifted up and away with your fingers. You should now be looking at the motor, flywheels, drive shafts and truck mounted gear boxes as shown in figure 1.



Figure 1

## Installation of your "silent" decoder

The clearance between the hood and the printed circuit board [PCB] is so close you need to decide where your DCC "silent" decoder is to be mounted.

If you choose to install the decoder inside the cab, then build the cab floor as discussed later on in this article, and omit the crew and control cabinet. Just make sure that the decoder you select along with its wires will fit inside the cab's interior. The PCB and its light bulb are of no use to you.

I chose to include a crew and fudge something that looks like the control cabinet. This means the decoder has to be mounted inside the hood towards the front. This article is therefore written with this specifically in mind.

In doing this, I had to dispense with both the extra weight and the PCB in order to accommodate the decoder, the extra wiring and a replacement 12v headlight bulb.

Looking at figure 2, the PCB and extra weight are held in place by a single screw on top of the motor frame. In removing this extra weight I don't believe you are going to lose too much in pulling power. My S2 Yard Switcher has easily pulled 15

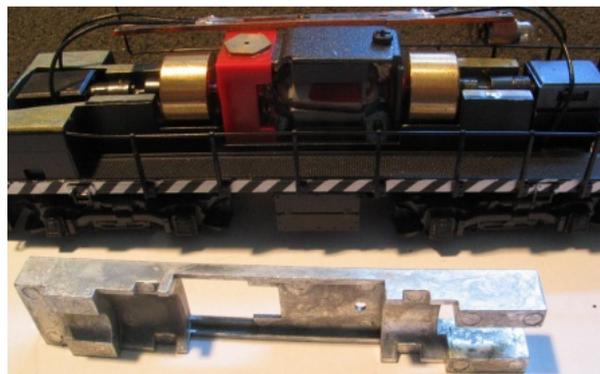


Figure 2

empty hoppers up a 2% grade, so this should not be an issue for normal switching duties.

Looking at figure 3 you should have removed just the weight and the PCB. However, keep the screw as you will need it!



Figure 3

Looking at the two pairs of pickup wires they are black on both sides! So which pair are the "red" wires? For our purpose, the long hood end is the front of the loco and the engineer sits on the right hand side looking forward. Thus the right hand rail is under him and it's these pair of "black" wires that should be considered to be the "red" pickup wires going directly to your decoder.

You could replace these pickup wires with longer wires using the correct colours, but I chose to keep them. However, to eliminate any confusion when I unsoldered this pair of wires from the PCB I slipped a short piece of red shrink tubing over them. The other pair of black wires should also be disconnected from the PCB.

The other important consideration with this loco is that the lower motor brush is in direct contact with the "live" motor frame and chassis. The opposite polarity gets to the upper motor brush's contact via the PCB.

Hence we need to insulate the lower motor brush by inserting a piece of plastic insulating tape between it and the frame. Also we need to solder a piece of orange wire to the edge of this brass motor brush nut. Make sure the exposed part of this wire

does NOT touch any part the frame. Similarly, the grey wire is soldered to the edge of the upper brass brush nut as shown in figure 4.

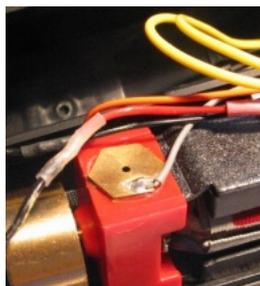


Figure 4

I chose to install a Lenz LE1000W Value Line decoder simply because I had it as a spare. Being a “cheapie” it only comes with one function which I used to control the front headlight. There is no option to automatically kill the headlight when the loco runs in the reverse direction.

However, you can use any brand decoder so long as its width does not exceed the internal dimensions of the hood. If your choice supports two or more functions then you could install a reversing headlight up in the ceiling of the cab. Just make sure you create a light baffle so it doesn't light up the cab interior like a lighthouse!



Figure 5

Looking at figure 5 you will see two pieces of scrap styrene glued on each side of the chassis. As shown in figure 6, take a piece of double-sided tape and stick it on the underside of the decoder and then press it down onto these two pieces of styrene.

This allows the double-sided tape to straddle and clear the drive shaft. Also, make sure the brass flywheel doesn't touch either the tape or the decoder.

Looking at figure 7 your decoder should now look something like mine.

Each pair of pickup wires were not long enough to be joined together and then to the decoder.

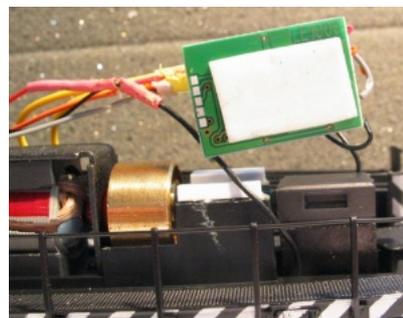


Figure 6

Therefore, I had to solder an intermediary wire to each pair of pickup wires and then solder the other end of it directly to its appropriate place on the decoder.

To stop all these wires from falling everywhere I thread the wires through a short piece of soft shrink tubing prior to soldering them to the decoder as shown in figure 7.

Before you start connecting your decoder to these wires, check the correct wire colours with your decoder's documentation. Once you are familiar with them, then we can proceed.

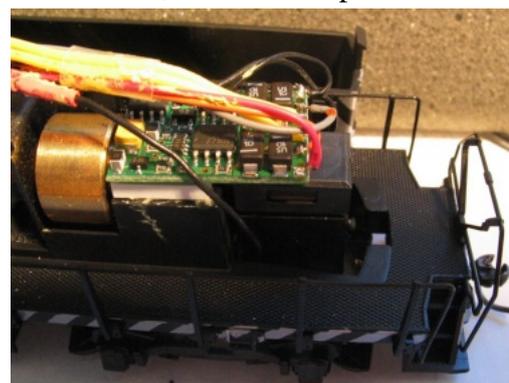


Figure 7

Looking at figure 7 the red/black wires are the pickup wires. The orange/grey wires take the power from the decoder to the motor brush nuts. Finally, the two yellow light bulb wires are soldered in lieu of the blue and white function wires. I soldered my wires direct to the decoder, thereby eliminating a need for a DCC plug and socket.

Looking at figure 7, you will notice how I oriented the wires when I soldered them. This is to allow the wires to lay back towards the trucks and motor brushes.

With the wires all now neatly bundled together, we need a platform that will keep them up and out of the way of the drive mechanism.

As shown in figure 8, take a piece of scrap styrene that will fit inside the hood. This platform will need a screw hole drilled at one end. As shown in figure 9, screw it onto the motor frame using the

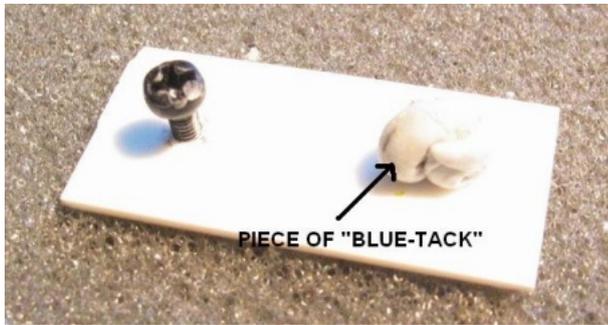


Figure 8

retained screw. The wires are then kept in place by means of a small piece of “blue-tack” as shown in figure 10.

We need to replace the original headlight bulb

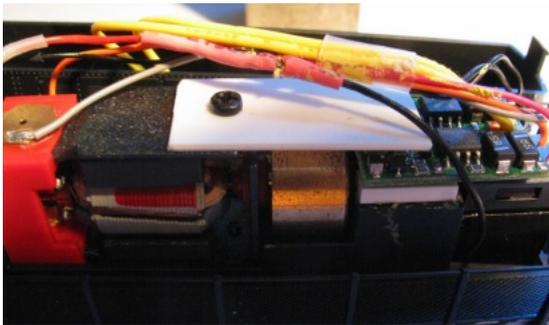


Figure 9

with another 12v light bulb. I bought this 12v “grain of wheat” bulb [with yellow leads] from Dick Smith Electronics. Cut the leads down to

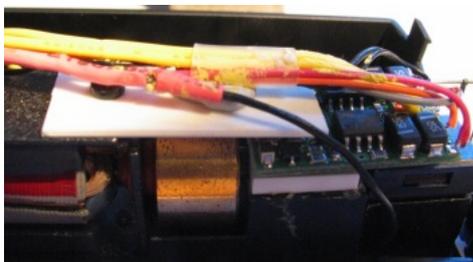


Figure 10

allow the bulb to be located underneath the hood with enough slack so you can separate the hood for maintenance without disturbing the light bulb.

As these light bulbs can generate heat I prefer to use a piece of plastic tubing as shown in figure 11



Figure 11

to hold the light bulb with a snug fit. Then using another generous piece of “blue-tack” pushed up underneath the hood to keep the light bulb well away from the plastic surfaces.

You will also notice in figure 11 that I painted the clear plastic “headlight” rod with some orange glass paint. This creates a realistic yellowish headlight glow whilst the number boards remain white.

This completes the installation of the decoder and you should probably take the loco away to your programming track to check for any problems and/or assign its address.

### The Crew

At this point we now shift our attention to the cab end of the loco. From your work so far you will have seen that the top of the truck gearbox housing sits slightly higher than the top of chassis.

Consequently, we need to glue two more scrap styrene spacers onto each side of the chassis so when the cab floor is in place, the trucks will have adequate clearance.



Figure 12

Looking closely at figure 12 you will notice beneath the grey floor are the spacers. Make sure the truck and its pickup wires do not snag on these spacers. The spacers are glued just inside the outside edges of the cab and NOT flush with them.

At this point remove the clear plastic “box” that fits up inside the cab’s roof to provide the window glazing.

This will allow you to measure the internal sizes so that the new cab floor will sit inside it. Also you can use the bottom curve of the clear plastic box to draw a template for the top of the firewall that will separate the cab from the hood.

Once you have made the cab flooring from scrap styrene, check again to make sure it will easily fit inside the clear plastic “box”. Next centre the floor of the cab and glue it onto the spacers. Put aside to dry.

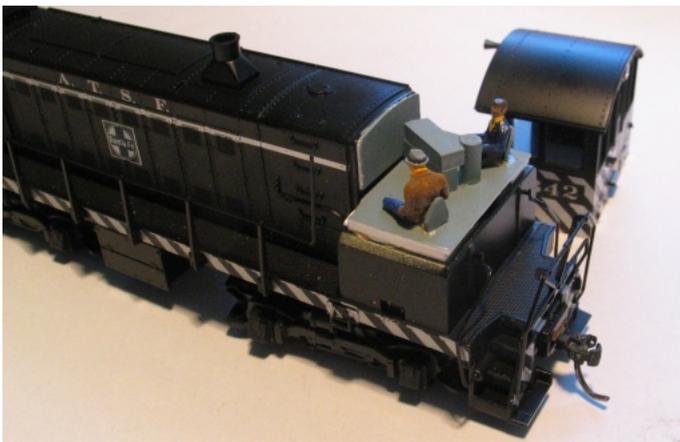


Figure 13

Looking at figure 13, you can see the firewall glued to the back of the hood. The width should be the same as the rear of the hood. The height of the firewall is determined by the distance between the floor and the top of the hood. Remember the cab's shell and glazing has to also fit over the firewall. Once you have deduced the firewall's size and outline make a firewall from scrap styrene and glue it in place. Put aside to dry.

I found two likely crew members in my scrap box. You could also use a couple of the Preiser figures from their “seated” collection. As the modified floor sits higher than the prototype, the crew will need to be “lowered” in their seated position. I chopped their legs off at the knees and painted them. Then I glued the back of their seats to their backs.

The “control cabinet etc.” was made by gluing together some more styrene pieces out of my scrap box as shown in figure 13. I painted the floor, control panel and firewall a neutral shade of grey, although you could also use a “duck egg green” paint colour.

Before I reinstalled the clear plastic “box” up inside the cab's roof I very carefully painted the inside of the cab shell grey. Make sure you don't get any excess paint bleeding on to the window

edges. Put aside to dry.

Now reinsert the clear plastic “box” into the cab shell. Glue the crew and the control cabinet in place. Put aside to dry.

Once everything is dry, slip the hood body shell in place. Then push the cab shell down over the floor until it snaps into position. Carefully relocate the railings into their holes.

Finally, I took the opportunity to replace the X2F couplers with a pair of Kadee #58 scale knuckle couplers.

Figure 14 shows the completed project with its crew manning the S2 diesel instead of a “black hole” being inside the cab.



Figure 14



Members, Partners (and a few larrikins) enjoy the Div 7 Christmas Party at Dence Park, Epping

# Region Roundup

## Division 1 Queensland

By Ian Venables

**JANUARY 2007**

Next Meeting

See below for a quick glance at what the program is for 2007. Keep an eye open for news of our Post Christmas Family Picnic and the day at the Warner Live Steam complex.

(All meetings start at 1.30pm unless advised)

Visit to Darling Downs Model Railroad Club (DDMRC)

Visiting the DDMRC is always a treat because this large group "invent" good ways of achieving results and always treat us with much camaraderie. Our visit to their club rooms on 4-11-06 gave us a chance to see the progress on their layouts, Eight are completed and a couple more are on the way. And what layouts! Most are large and their N scale layout must have one of the longest mainline runs in the country. One scale layout takes about 20 minutes to cover with the potential of it being a lot longer if they join another layout next to it.

A Division 1 meeting was held and Glenn Stevens told the group that we are planning to hold the convention on the 2nd weekend of September 2008. He mentioned that at this moment the initial planning was being done by him as superintendent, Sandra Stevens and Ian Venables. Since then Graham Emery has been asked to contribute by looking into the clinics programme. More people would be required to make up the committee as we progress into next year. Another appointment is that of Graham Emery as our new librarian. Those clubs with 100% NMRA memberships will be allocated library material depending on their membership size.

The 2007 calendar is not yet completed nor fully confirmed but here is a preview:

Jan – Post-Xmas Family Picnic

Jan – Warner Live Steam

Feb 10 – Alan Harland, Oxenford

Apr – John Lebsanft Bundaberg

Jun 16/17 – Toowoomba Train Show

Aug 11 – Macleay Island layouts

Oct 13 – Ian Wellings, Sunshine Coast

Dec 8 – Toowoomba Oma Belt & DDMRC

**Show and Tell:**

Glenn Stevens showed a WM 2-8-0 (Bachmann) with a train coupled with Kadee No.58's to show the difference in overall length and the distance between cars.

Phil Perry showed an N scale timber mill made by Republic Loco Works but enhanced with many of Phil's scratchbuilt extras. He also showed a wonderful tool, the MicroMark head lenses with white LED lighting.

Geoff Aldridge showed a couple of Glenreagh Railway books (NSW) and a DVD. He then showed an Atlas Gold Star Train Master with DCC and sound. Geoff also had a Trix 2-8-2 with LokSound and DCC. He then recommended the latest Track and Signal magazine with its article about the proposed Melbourne – Gladstone Railway which is expected to go via Toowoomba and Wandoan after coming through Dubbo and Moree. Another publication he recommended for anyone going to the US and travelling by train once there, was USA by Rail, a Bradt publication. Finally, a recent *Trains* magazine has an article about the possibility of a Kansas City to Mexico Pacific coast RR that makes for interesting reading.

This was a memorable gathering as it was the first time that the NMRA, Darling Downs Model Railroad Club and the Southwest Qld groups had got together in one place.

### Answers to the Last 10 Questions

1. The Missabe & Iron Range M-3 Yellowstone 2-8-8-4.
2. The Canadian Pacific.
3. 4449.
4. The Dan Patch Electric Lines.
5. Delaware Lackawanna & Western.
6. Canadian National.
7. Nashville Chattanooga & St Louis
8. Louisville & Nashville.
9. 120mph.
10. AT&SF Super Chief.

### Comment

We, as humans, seem to like being the same in many things. It's comfortable. In model railroading just think how this effects us as modellers. There has been many a comment lately about a geographical group of modellers all using a single brand of DCC controller. Fair enough. For

most, it is a complicated affair and the more of us using a single brand in one locality, the more likely we are to find answers from our friends living in the neighbourhood. Is this what drives most Australians modelling US railroads to model western roads? Or is it because the West Coast of the US is the closest part to Australia and thus if we get to railfan in the US we start as soon as we land? Is it the Santa Fe's eye catching warbonnet scheme or any other western road paint scheme that attracts us? That's like asking what comes first, a shop full of western road locos or the demand for western road locos causing traders to stock them? Perhaps it's the Big Boys, Challengers, Cab Forwards, etc? Some of us are driven the other way. That is, because there are so many western roads, we like to do something different. That certainly influenced my choice and why I'm interested in the L&N, SR and other roads connecting to them. But these other lines also have beautiful diesel colour schemes and they had some classy steamers too. They went through nice scenery including, in some places, great mountain scenery. They generally interchanged with more roads than western roads did. Some of these Eastern roads would make really great models. Think of the tiny Interstate with only 88 miles of trackage (1960). It had freight and passenger operations, traversed lovely scenery, had many interesting structures and industries, had a reasonable variety of steam locos, including mallets, diesels and RS-3's with one of the most startling colour schemes in the US. Then there is the Clinchfield with similar features but still quite different in some things. The CRR had lots of coal tipples models of which would easily fit in a very small corner with most of them being a scratch builders paradise. I've never heard of a model of the Charleston & Western Carolina nor the Atlantic and East Carolina (a Branchline boxcar is available) nor Sumpter & Choctaw nor the Columbus & Greenville (the original Delta Line). But each of these railroads had features that are most appealing and call out to be modelled. There is information about them if you look hard enough. Models can be bought, the lettering removed, the odd detail added or perhaps removed, cars and locos re-decaled and you begin to have something almost unique. What you can't fill in from reference sources you can surmise and who can criticise you? But you don't have to hunt down the really small RR's. The Monon, the Alton,

Tennessee Central, Chicago & Eastern Illinois, Chicago and Illinois Midland and the Nashville Chattanooga & St. Louis are roads that are very attractive in many ways. Then there are many others in New England and along the eastern seaboard. If I go on much further the retailers will be wanting my blood! What I'm really saying is, "Don't be afraid to go out on a limb and do something different". Having to delve into your chosen RR a bit deeper because there is less information about it may give you a greater sense of achievement and fulfilment. You might also be surprised at the attention you'll get.

### **Some History**

On 2nd July, 1913 General Electric completes construction of the first commercially successful locomotive powered by an internal combustion engine. The loco goes into service on the Minneapolis St.Paul Rochester & Dubuque – The Dan Patch Lines as #100.

On 12th December, 1922, the long Island RR #401, a 100 ton, 60 hp diesel locomotive, makes the first move of a road freight train with diesel power in North America. The train of 379 tons travelled 537 miles.

On 25th June, 1925, Baldwin Locomotive Works places locomotive #58501 in service, the first to be powered by a diesel engine.

Confused? Yes so am I, but that's history!

### **Who's Doing What?**

Division 1 Superintendent:

Glenn Stevens.

Achievements Program Chairman:

Grahame Davis.

Achievements Program Committee:

Ken Leitch.

Display Layout Co-ordinator:

Paul Skehan.

Newsletter Editor:

Ian Venables.

Company Store (Shirts & Name Badges):

Glenn Stevens.

Treasurer (Hon): Sandra Stevens.

Webmaster: Lynn Zelmer.

2008 Convention Committee:

Glenn Stevens (chairman)

Sandra Stevens

Graham Emery

Ian Venables.

### **Get Well Soon**

We all wish our friend from Gosford, John

Saxon, a speedy recovery after a recent operation and may he recuperate fully at the controls of the Cedar Valley Lines.

### MARCH 2007

Next Meetings

31st March at Alan Harland, 75 Ruth Terrace, Oxenford.

12th May at Bob Brown, 63 Viscount St, Bray Park.

Then:

Jun 16/17 Toowoomba Train Show

Aug 11 Macleay Island layouts

(All meetings start at 1.30pm unless advised)

### Farewell

On behalf of the Display Layout SIG, we said farewell to popular Canadian member, Roy Berryman on Sunday 7th January. Roy brought with him much enthusiasm and knowledge that we all appreciated.



Roy, flanked by Division 1 Superintendent Glenn Stevens and Display Layout Co-ordinator Paul Skehanholding, and our farewell presentation to him, a Kato BN business car.

We wish him, Jessica and their children our best wishes on their return to Canada and hope that we haven't seen the last of them. Roy stated that he wished to remain in contact with us in the future and I'm sure everyone here is pleased to know we have a faraway friend we appreciate.

### Display Layout

We recommenced working on the display layout again on 14th January. Lessons learnt in the past are being put into action and we believe that when finished all of these improvements should make the thing a joy to erect and run. We progress slowly but that's pleasant because I've never known modellers to be short of conversation on their favourite topic. There is a lot of chat in amongst all of that hammering, drilling, soldering, gluing, etc. I hear people say, when doing some job on the layout,

"That's given me a good idea of how to do that job on my own layout".

All of the frogs are wired to the slide switches that operate the turnouts. The tubing and connecting pins for the joins at the module ends are in progress and being done a lot more accurately than previously. Some scenery work has been started and we've decided to make the trestle a ballasted one as that eases the maintenance of the track bed in that section. This is because the roadbed doesn't need changing to a thinner piece at the bridge. This should be more durable for a layout that is moved often. Some jobs are repeats but are being done much more carefully and not so rushed. Others are new directions and hopefully doing things in a way that will stand a lot of movement but achieve the results that we hope for.

### Comment

You're a model railroader. That means you have a reasonable collection of tools especially fine ones. It also means that you probably can use them with proficiency. You also have a workshop or workshop area that contains timber, all sorts of wire in many thicknesses, putties, glues, electric tools maybe a lathe and round half-hard brass lengths. You probably have many colours and types of paint and what's more you can mix them very accurately to match a chip of some obscure colour. You aren't too bad with electrical circuitry either. Got the picture? You also have family, friends and neighbours with almost none of these advantages nor the skills to use them, but can sniff out your workshop and your abilities like a pig finding truffles in the French forests. These people are out to spoil your modelling time by asking you to fix Aunt Dolly's clock radio, daughter Maisie's connecting cord from the PC to the printer. How about a daub of paint on the car where a stone chipped the bonnet? And you haven't told them anywhere near about all of your talents yet. Thank God! We are likely to see all of these chores as a pain but we do them anyway; and of course we never charge them a cent. You can get some mileage out of all of this. I'm fond of announcing that my Unimat lathe has saved this household a fortune over the years. Things such as the washing machine bearings have been fixed promptly without having to empty the machine and it cost almost nothing; except for the original pile of cash the lathe cost! But each job it does, lowers the cost of each individual piece. That must bring the next job cost down to about 0.001 cents. Well how





Centre Photo  
John Hughes new Western Road Layout  
Photo by Gerry Hopkins

about getting your due in full. Show them where all of this gear and your talents are directed to. Explain how model railroading has taught you so many skills that are great fun and useful around the household (that will get spouses in!). Show them the interesting and the finer points of your hobby. You could force them to accept you as a very well adjusted hobbyist rather than a nutter who plays with trains. You may, with considerable skill, get a convert to our great hobby, and, as I have said before, "that's got to be good for all of us". Lots of people are looking for hobby time these days. And don't think of it as a male thing; you'd be surprised by the number of women I know that are fascinated by the scenic aspects and one or two by the possibility of making structures. If none of these things come to pass, you may bore them to tears and suddenly find that you have more hobby time and fewer interruptions.

### **Some Reading Matter**

I have just received from Chattanooga the new NMRA publication "The Postwar Freight Car Fleet" by Larry Kline and Ted Culotta. What a wealth of information there is in this hard cover book. The Introduction explains the make-up and the reason the book is written. In particular the authors validate their freight car coverage by ensuring that their treatment reflects the percentage of each type of freight car in the American fleet in 1947. The book is really a photographic record of the diversity of freight car with captions that give some account of the logic behind each particular car. There are a lot of surprises to be found throughout this book. I noted that that flash Readingherald with the red background was extant in 1947 and is not a later indulgence as it seemed. I recently bought a gondola with that logo in a sale and was about to backdate it to my era by using something a lot simpler. Don't have to now! It is interesting to note the variations in lettering for cars of the same road in photos taken in 1947. The maxim seems to be, "Don't be too dogmatic about how a car was lettered at any particular date". Another surprise is the number of boxcars that seemed to use Murphy corrugated ends and the variety of corrugations in those ends. Yet there aren't a lot of models with these Murphy ends. As most of the photographs are dated, we now know that obsolete equipment, for example vertical brakes staffs, carried on long after its stated official discard date and it was used in interchange. If you are at all interested in the accuracy of your freight

car fleet this book is a must. It can be cross referenced with information obtained from Official Railroad Equipment Register reprints from the NMRA, plans and articles in the various magazines and information from the internet very well. As modellers of the American prototype, this is another great tool to get your freight cars right.

I also ordered the 2006 Clinic Book (Philadelphia) at the same time. Like clinic books of the past, it is full of information on a variety of aspects of our hobby. In my own case, I even got some answers to long standing questions about the Borden butterdish milk tank cars. There are sections on Animation and Electricity, Cars and Trains, General Modelling, Industries and Prototype Research and Modelling. It all makes one thankful to be in the NMRA.

### **Outing with Live Steam**

On Sunday 11th February, we paid a visit to the live steam group at Warner, the Queensland Society of Model and Experimental Engineers. There was a good roll-up of members, wives and friends. As it turned out, we didn't even have time for a formal meeting. There were so many locomotives in action during our visit, mostly steam, that it was impossible to round up members. Although a hot day, we found good shelter at a few picnic tables under shady trees and were so taken with the trackside action that I doubt very many would even remember what they ate for lunch! Prominent runners were a couple of beautiful BB181/4 QGR steamers, more QGR in a PB15 and a C16, NSWGR 3807, a 'Rocket' type and a vertical boilered logging loco that ran all day. Yes there were a few non-steam types but they are difficult to remember for an old steam freak like me. This is one of those places where you go expecting a 2 hour outing and stay for 5 hours. So be warned.

### **Easter Events Interstate**

A couple of Easter events have been brought to my notice. Firstly the Exhibition of Australian Model Railways 2007 run by the Hobsons Bay Model Railway Club. For details check:

[www.hbmrc.net](http://www.hbmrc.net) [1].

Secondly, there is the 8th Narrow Gauge Convention in Melbourne. For details check: <http://users.bigpond.com/nawlines/ngconvoz.htm>

or contact Laurie Green at: [lauriegr@bigpond.net.au](mailto:lauriegr@bigpond.net.au) [2].

Attendance is by pre-registration only and closes 26th March.

## UP Club Buy and Sell

This year's dates for the popular UP Club buy and sells are:

Tuesday 20th March

Tuesday 17th July, and

Tuesday 20th November.

These are an opportunity to get rid of your unwanted items and perhaps buy up on items you need. But they are also great social occasions. So be there as you are sure to get something out of it.

The AMRA Train Show this year will be on the long weekend in May, Saturday 5th May to Monday 7th May. Besides the social event you get a chance to see what others are doing and perhaps make a purchase or two of items not normally seen in the shops.

Check out NMRA Scale Rails (The old Bulletin) as it is much improved and may be a help to your modelling.

Finally, this is a plea for you to please keep us informed of your e-mail changes. Your Newsletter editor has little enough hair already without needing an excuse to pull out more!



Taree Christmas Party  
Members inspect Garratt locomotives



George Paxon's On30 Layout - Photo by Josh Loyd

## Division 2

# ACT

## Division 3

# Victoria

by Rod Hutchinson

### February

The February meeting was held on Sunday 18 at it's regular venue, the home of Paul & Kath Ritchie, located in Ballarat on the road to Adelaide. 10 modellers and 2 partners arrived on a very hot day, complimented by attendees from as far away as Mooroolbark, east of Melbourne, Stawell to the west and Geelong to the South.

### Models on display



Laurie Green has been working on his submission to the 2007 Australian Narrow Gauge Convention; a station halt in O scale called "Tullie", and showed off his new Precision Models On30 Galloping Goose No.4.



The sound decoder is very realistic representation of an internal combustion engine, starting up when the power is applied. Rod Hutchinson presented a scratchbuilt standpipe in a HO which was his submission to an internet modelling challenge.



Web Address: [http://www.railroad-line.com/forum/topic.asp?TOPIC\\_ID=13750&which\\_page=30](http://www.railroad-line.com/forum/topic.asp?TOPIC_ID=13750&which_page=30)

Paul Ritchie showed his progress with his On30, Forney and Sandy River locomotives.



### Reading matter

Grant McAdam; Narrow Gauge and Industrial Railway Modelling Review, Narrow Gauge News



and the Puggy Line by Patrick Harat. Rod Hutchinson; Newsrail February 2007, Light Railways No 93 featuring the narrow gauge railways of PNG.



Grant provided an update of the Narrow Gauge

Convention to be held at Noble Park, Melbourne during Easter 2007.

Web Address:

[http://www.users.bigpond.com/nawlins/convention\\_home.htm](http://www.users.bigpond.com/nawlins/convention_home.htm)

Following a very hot day catching up with modellers from far flung parts of the state, Grant thanked Paul & Kath for opening up their home, and presented them with their thankyou plaque

Next Div. 3 meeting venue will be at the home of Bill Black, 18 March 2007

## Division 6 South Australia

by Ron Solly

The first 2007 meeting was held on February 3 at the home of Ron Solly and it was a hot day.

Water coolers & fans going ninety to the dozen as we were outside. The Train Room was not bad and inside the home was better but less room. 21 names appear on the Attendees listing.

Ron mentioned a few aspects such as surplus magazines; the Mainline possibly going on-line; our Divisional finances and the raffle. The raffle will be held open for 3 meetings with 2 prizes of gift vouchers from a couple of local hobby shops; Wats-on-Track and Graham's Corner and to these, we say "thanks".

It was pleasing to see Ron Davey return after 2006 being a bad year for him and his family.

The modelling part of the afternoon was a mixed bag of "Show and Tell" covering a Kadee coupling test track; detailing an Athearn GP38-2 loco; vehicle construction in G scale, cardboard buildings using software for brick and stone papers and old soapboxes and oddments found throughout the household for detailing.

The layout of the host gave some members a few ideas coupled with discussions of how UK models have improved over the last few years. The layout was even used to test out one member's USA model loco.

As usual, lots of general chitchat floated around the group, some of it modelling and others of any other topic.

Refreshments of hot and cold varieties were available all afternoon and the goodies provided by the partner of one member disappeared in a flash.

It was unfortunate that the weather was not kind and, if memory is still OK, it would be the second time that weather has been not the ideal

considering we have held 21 meetings since we got started back in November 2003.

The next meeting on April 14 will be at the home of Mike Warburton at Elizabeth. Let Mike know by Wednesday April 11 if attending on 8255 1676.

## Division 7 New South Wales

by John Montgomery

### January

On a beautiful sunny Saturday our members heeded the call to go west into the Blue Mountains to visit George and Celeste Paxon at Wentworth Falls. Forty nine members signed the attendance book and many of those members attended with their wives. It was very nice to see the ladies accompanying their husbands.

George has done considerable work on his layout since last we visited him. His O Gauge



layout which runs on DCC ran superbly and the buildings and scenery were immaculate. It was a pleasure to see such a high quality layout on display for the members. George was ably assisted running the layout by Ray Walter and some of the other members.

After a very short business part of the meeting Celeste served us a wonderful afternoon tea.

All members who attended the meeting appeared to enjoy the afternoon and the company provided by both George and Celeste.

### February

The February meeting was held on a very warm Saturday afternoon at the home of John and Lorraine Hughes. Fifty members and some partners attended the meeting.

John has dismantled his previous layout from 5

years ago and built a completely new layout. His layout is freelance American diesel era. He has commenced working on the scenery and it will be interesting to see how it progresses in the future.



During the business part of the meeting our President, Sowerby Smith, told us about the upcoming sale/auction of railway rolling stock, locomotives, magazines and books from the estate of the late Ian Hopkins. A number of people appeared to display interest in this event. The sale/auction is scheduled for the April meeting at John Baker's back shed.

Gerry Hopkins also advised those present about a spreadsheet he is designing to go on the NMRA website for those who would like to make an inventory of their model railway equipment and rolling stock.

After the meeting Lorraine and a number of the ladies served everyone a very welcome afternoon tea. I would like to thank Lorraine and John for their hospitality on the day.

## Division 8 Northern Rivers

by Ian Phemister

A happy New Year is what we got when the hall doors opened last Sunday morning. We were confronted with Charlie's Masterpiece!!!



Our First meeting for 2007 was a hit. Member, Charlie Reid, had been busy building the "Modules" for our new layout. As each of us

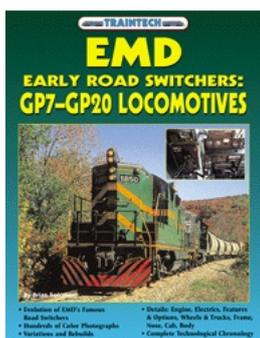
entered the hall, chins simply dropped to the floor and Holy \_ \_ \_ \_! was the only thing heard. There was not a whisper of criticism to be heard upon inspection, and why would there be when it was



built within a 1/2 millimeter. That Charlie.....Spot on!

Due to a lag in the building trade, Charlie and son Dave had spend most of the holidays constructing all 14 of the new modules for the new layout. Over five thousand dollars worth of alluminium has been cut and welded to bring it all together. At present they are still just frames. Backdrops and roadbed is still to be fitted.

Throughout the day several of us continued with construction of the numerous building kits we had purchased. John Skinner showed us how he makes his Gum trees for his home layout and after a general discussion it was time to head home. What a great, Positive day and great start to the new year. I have only added a couple of pics, To see more you will have to come up and see it for yourself.



## Book Review

By Gavin Hince

The emergence of diesel power arguably represents the major technology influence on railroads of the past century. Among this evolution, EMD road switchers (general-purpose hood diesels from

GP7's through to GP20) were a massive influence on the design and refinement of the modern hood-style diesel-electric.

Beginning with the GP7 in 1949, thousands of these units were built for use in the US and dozens of other countries. The hood construction allowed easy maintenance access and good visibility for switching. The mid-powered road switcher provided "building block" power suited for yard work, branchlines, or combined in lash-ups for heavier haulage. Sharing many components with

other EMD models, the success of these designs made EMD a dominant locomotive builder. This signalled not only the "end of steam" - as ageing steamers were displaced from lighter duties and branchlines - but also the decline of traditional rival builders such as Alco and Baldwin.

Over 112 pages and more than 200 photographs, this soft-cover book from Specialty Press traces the evolution of the EMD road switcher. Early chapters deal with preceding models and the early Alco locos that developed the "road switcher" concept. Chapters then deal with each of the major model evolutions; and finally address "re-builds" by a number of railroads to prolong the service life of their diesels.

Modellers will appreciate the numerous close-up colour photographs and extended captions highlighting the variations amongst different users.

Generally, photos of a particular railroad's engines are grouped together, providing easy reference for modelling purposes. Many specifications are also provided, particularly for the EMD 567-series diesel engine that powered many of the road switcher models. The book also explores how design improvements provided performance advantages for EMD's products - such as traction motor cooling performance. As well as being interesting reading, this material provides modellers with a better understanding of practices to operate and maintain the real thing - such as "cycling" the traction motors after prolonged heavy usage.

This book forms a companion to previous volumes that explored "F" cab units and other contemporary diesels. The crisp presentation and highly-readable text make it an enjoyable read for anyone interested in diesel-era US railroads; and the photographs provide great modelling references to customise your road switchers to individual prototypes.

# The Story of the Fanta Se Railroad.

By David Latham

A new railroad room with two floors of solar and thermal insulation was purchased in July 2003. This

me organise some ideals.

Presently, the HO scale layout is a 600mm shelf along one wall with return loops located in the adjacent sub-floor area. There is a hinged drop leaf at the garage door end where a loop of track directs traffic to one of these return loops. The next stage



occurrence necessitated a new and, hopefully, better model railroad.

Surveying and planning of the available space (an oversize double garage which houses two cars) began very soon after. I was determined to use new techniques to model the right-of-way and a trip to

of construction includes continuing the shelf around the back of the garage and onto the other side wall to hold a stub-end branch.

Work has been steady since July 2004. The benchwork is at such a height that the doors of my car can open under it. Shelf storage was built to support the railroad. 15mm plywood was used in both. The mainline roadbed is made from 4mm thick 25mm wide draft-excluding tape. This material is soft-ish and has peel & stick simplicity. I used this for its sound deadening properties but this meant that all other glues needed to be flexible. Clear silicone holds the track and points (Peco code 75) and Chuck's ballast glue, the ballast. Yard areas are glued and ballasted with white glue direct to the plywood to give a more prototypical look for the elevated mainline.



Seattle for the NMRA convention in 2004 helped

The area scened so far portrays a division point on the Fanta Se



network. There are the necessary loco service equipment, turntable, roundhouse, etc and some sizeable industries to keep the 'operators' happy. By the time of the NMRA meeting at the FSRR next year, I should have all this side of the garage 'completed' and some indication of my intentions for the branch. I hope you can all (within reason!) attend.

David Latham (CEO FSRR)



# MASTERswitch Solenoid Point Motor Operating System

by Ron Solly

Some months ago, I presented a Product Review on the above subject and even followed it up with an Addendum based on my experiences. Since then, a modeller in Adelaide had installed MASTERswitch® but still had lots of problems with his layout – This was of concern to DCCconcepts as they'd not seen problems like Ian was experiencing before, with Ian already having more failures than had been seen in the rest of the worlds usage to date. Richard Johnson of DCCconcepts asked me to take a look. Between Ian the modeller, DCCconcepts, & myself, the problems were finally identified and resolved.

The story is a VERY interesting one and could be found on any layout... It's a salutary tale of "read the instructions and follow them" with a twist that could never have been anticipated – and a cautionary story that should be seen by EVERY owner of Peco point motors!

Here is the story of Ian's problem and its resolution...largely in Ian's own words, with a little editorial layout change and some input from DCCconcepts too:

## Experiences and Conclusions RE: DCC Concepts MASTERswitch

### Powering MASTERswitch®:

After discussions with DCCconcepts re powering the MASTERswitch® I elected to build a power supply myself and installed a heavy duty Toroidal type 18v transformer & used a 6amp bridge rectifier. This results in a powerful device - ideal for double action turnout operation. Initially I had the output at 18VDC but then added a large capacitor, which surprised my by giving a final output of over 25VDC!

In my initial trials I managed to burn out several MASTERswitch® - this surprised me but they were promptly replaced by DCCconcepts (Thank goodness for an understanding supplier and a goof proof warranty!). Concerned at my problems, DCCconcepts discussed the failures with me at length as there had been no evidence of reliability issue in their own tests, and in the absence of any other evidence it was initially thought that this "higher than recommended" final voltage MIGHT

be the cause as we could see no other reasons. As it turned out, it wasn't – but more of this later!

Note: In fairness both Richard/DCCconcepts and the MASTERswitch® instructions had consistently recommended a properly regulated power supply.

It was also pointed out that a spare laptop computer power supply was a perfect and often free source of "point power", being well regulated and usually with an output of 18~20 volts @ 3 amps or so).

### Installing MASTERswitch®:

Replacements having arrived, I initially installed MASTERswitch® within the control panels, directly soldering it to the switches. Whilst this worked quite fine it then of course needed heavy wire between the MASTERswitch® and point motors which was going to use a LOT of heavy wire and the benefit of more ready access to the units was obviously going to be negated by the resultant crowding of wiring from the panels. I changed approach and reinstalled the MASTERswitch® units beneath the layout and adjacent to the turnouts they controlled. This allowed a great improvement as the MASTERswitch® DPDT switch operates with almost no current demands, so I was therefore able to use very light wire between panel-switch and MASTERswitch®. This greatly eased congestion in the control panel and meant I needed far less heavy-duty wire as well. – A better way and much neater than the first method.

### Powering MASTERswitch®:

PECO point motors are current hungry and need good solid wire. I created a "bus-line" from my power source and tapped into it where appropriate. I used speaker cable WH 3078 15GA which is heavy duty & quite flexible. MORE Problems! Having set up everything "right", or so I thought, I was frustrated to find that I was still getting burn-outs of the MASTERswitch®. This occurred generally within one side of the MASTERswitch and in the end affected some of the Peco point motors.

It occurred to me that it might be an issue with older point motors until this occurred even with a replacement point motor. I was becoming VERY frustrated! DCCconcepts AGAIN replaced the MASTERswitch® failures without question under their "goof proof" warranty and before re-installing the new ones, I double checked everything I could think of.

At this time Richard at DCCconcepts introduced

me to Ron Solly and we discussed the issue before taking the next steps. Everything else having been checked, between us we concluded that it **MUST** be the Peco point motors.

So – Meter in hand, I checked all the PECO point motors and was amazed to find that a number were down significantly in resistance values. It appears that most of the motors, which had been in the system for some time had, over the years of operation, deteriorated significantly. This was clearly shown by the fact that many of the coils had obviously suffered from a deterioration in the insulation on the coil wires, resulting in them being almost a dead short!

Peco point motors **SHOULD** be between 4 and 5 ohms... but in fact I found some showed between 1 - 2 ohm resistance, which of course resulted in a huge current draw of 8 - 16 amps! No wonder I was blowing things up!

The real cautionary tale here is that it wasn't only the older units at fault – in fact I was intensely frustrated to find that one of the **NEW** replacement Peco point motors was also down on resistance and caused a burn-out.

Having replaced the point motor, I didn't think that the motor could be causing the problem – but it was!!!

### **PECO point motors:**

Peco point motors “as supplied” should have a reading per coil of between 4.5-5.2 ohms. Already a substantial load for any power supply as 15 - 16.5 V results in a current draw of 3 - 3.5amps - a figure that is hell on normal switches but well within the capacity of the MASTERswitch® units.

Having tested a few, and found a very wide variance, I tested all of them. **MANY** were “off spec” and unreasonably low so where possible I adjusted all of mine to 5 ohms by wiring in series an appropriate value 5-Watt ceramic resistors. (These are available ex stock in very low impedances from JAYCAR)

What are the options here? Not many really. Peco do create a 12 ohm “low draw” point motor but this is **NOT** available with a long reach shaft, and extension shafts are generally unavailable, thus still forcing the use of the 4 ohm 3 amp draw units, particularly if requiring under layout mounting.

The lesson: don't assume that anything is as good as it was when you bought it. Peco point motors clearly deteriorate in use to the point where they become almost dangerous (a dead short can be a fire hazard as well as destroying other innocent

products).

As a result of my experiences, I **STRONGLY** recommend that you check Peco motors regularly (say once a year) and consign any below say 3 ohms to the rubbish bin immediately!

### **Conclusion**

So... in the end, my problem was not with MASTERswitch® but with PECO and their point motors – plus to a lesser degree, having used a power supply outside the recommended voltage range.

With these things identified and corrected, MASTERswitch® now performs faultlessly.

I have found the MASTERswitch® switches to be very functional and they offer great convenience and easy connection of panel and signal lighting – without need for “mounted on the point” micro-switches.

I've learned a lot from this experience. Especially that far from being a reliable item, Peco point motors can often quietly become "suss" and it really does pay to check each coil's resistance (even the new ones) before installation.

I've also realised that the instructions should be followed for good reason! The better short circuit and current limiting of a properly regulated power supply would have protected the MASTERswitch® in the first place, and there is another benefit too.

When operating the turnouts with unsmoothed/unregulated DC, the slightly loose coils of some PECO point motors can “buzz” annoyingly (this buzz is a vibration from AC residual not cleaned up by a basic bridge rectifier so some "feed-back" noise will be noticed from some units. A capacitor will silence this but also boosts the voltage of an unregulated power supply.

Using a properly regulated supply will rectify this problem. I haven't worried about it at this stage and have dampened some units by further clamping over the unit itself beneath the layout. The noise, whilst annoying, hasn't affected operations. An added tip - some packing grease (Vaseline) inserted along and behind the slide within the point motor also helps to lessen resonance... and keeps the solenoid free to throw easily.

Many like me probably have a significant number of turnouts earlier wired to Peco units. We usually have little choice other than a very expensive conversion to tortoise or similar point motors.

MASTERswitch® really **DOES** do what it claims very well, giving Peco users more reliable

operation, a failure free switching system and the luxury of panel lights and easy interfacing of signalling or frog power control as needed.

I have no hesitation in recommending them as a far better managed and neater solution to layout control at an affordable price. MASTERswitch® is a very useful product and is well supported by DCCconcepts, a helpful, supportive company.

## Division 9 & 3/4 Handy Tips

By Gerry Hopkins MMR

Well, my hairy upper lip may not be hairy enough for this, but, here we go with a little “myth busting”.

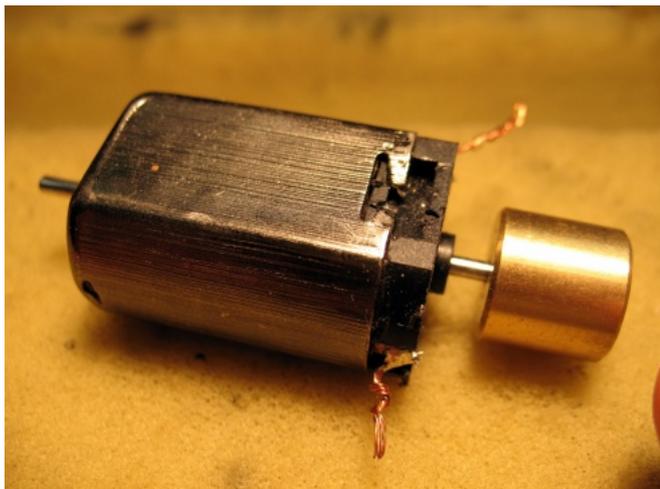
### Myth No. 1

We are told that we must ‘isolate the motor’ when fitting a decoder. The word isolate is the one that causes ALL the problems. People have brought locos to me with the words “I put a decoder in but it does not work”.

One loco had a motor that was sheathed in a thin latex sleeve to ‘isolate’ from the frame – a condom. Another one arrived with the motor encased in the finger section of a latex glove. One arrived with the motor in a ‘heat shrink’ sleeve.

Isolating the motor only means isolating the two small connections to the motor brushes – the rest of the motor should be left alone.

The photo below will give you the idea.



### Myth No. 2

If you have more than X locos on the layout you need a bigger booster. NO, if you have a large number of locos you get an extra booster and split the layout into two power districts.

The power delivered by a DCC booster is very different to the power delivered by a DC system.

The current measured on a DCC system for a given loco can be much less than that measured on a DC SYSTEM for the same loco.

I only have a few locos on my layout (compared to the yanks) and I have never been close to tripping a 4.5 amp booster.

I use two boosters to drive the layout with a total of 52 locos (36 with sound). At an operating session there can be 10 throttles driving a total of over 18 locos at any one time.

Another part of this myth is that you need to raise the voltage of the power supply when you get more locos – wrong. As long as the amp rating of the supply exceeds the amp rating of the booster the booster will be happy. Remember, one supply for each booster.

### Myth No. 3

The choice of decoder. Terms like N scale or HO decoder only refers to a Plug and Pray decoder made specifically for a particular loco. Example, an N scale decoder is a long thin decoder that replaces the light board in an N scale loco.

The physical size of a normal decoder does not limit it to a specific scale. Example – a TCS M1 (the size of your thumbnail) driving a G scale work Goose. The limit is the rated current of the decoder not its size. The M1 or MC2 is ideal for many HO NSW steam locos. Example – the MC2 is great for fitting in the coal bunker of an NSW 26 class loco.



These 4 decoders are all happy to drive this P2K GP7. Notice the mechanical “keep alive” capacitors ?

# Retail Directory

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**Photographic Contest entry 2006 Convention  
Photo by Josh Loyd**



**The MainLine Editor handing over the Top Points - Bottom Points section staff.  
Top Points Signal Box, Zig-Zag Railway Steam-up 2005  
Photo by Maika Ly**