



# THE ORDER BOARD

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June 2018

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## TIME TABLE

July 21, 2018  
**Cajon #3704-1 South**  
 LA to San Diego, CA

August 5-12, 2018  
**NMRA National**  
**Convention**  
 Kansas City, MO

August 18, 2018  
**San Diego Summer Meet**  
 San Diego, CA

September 13-16, 2018  
**PSR Region**  
**"Beach Op's" Convention**  
 San Diego, CA

October 27-28, 2018  
**LA Division Freight Frigh**  
 Palos Verdes, CA

November 3, 2018  
**Cajon Fall Meet**  
 Buena Park, CA

November, 2018  
**Cajon Henderson Fall**  
**Meet**  
 Henderson, NV

November 3,4,10-12, 2018  
**OERM Thomas and Percy!**  
 Perris, CA

## NMRA Pacific Southwest Region 2018 Convention

# Beach Op's 2018

San Diego, CA  
 September 12th through 16th



The 2018 PSR Convention is being hosted by the San Diego Division of the Pacific Southwest Region, NMRA. The Convention begins on Wednesday, September 12th, and ends Sunday, September 16th, 2018. Events include clinics, layout tours, prototype tours, auction and banquet.

The theme of the convention is model railroad operations. There will be clinics on hosting operating sessions on a layout, model building, layout building, scenery and other topics of interest, operating sessions on well known local layouts, layout tours (many featured in the modeling publications), the PSR Contest Room, modular layouts at the hotel, Railette events, and many other activities to keep you interested, informed and entertained.

There are also concurrent events as part of the Convention - The Convention kicks off Wednesday evening with a Reception at the San Diego Model Railroad Museum in Balboa Park, and Saturday is the Model Railroad Swap Meet in the hotel parking lot, sponsored by the Short Track Railroad, a model railroad club at the Antique Gas & Steam Engine Museum.

The site of the Convention is the Marriott Courtyard in San Diego. San Diego being a major vacation destination, there are of course many activities available for you and your families: great restaurants, beautiful beaches (and September is one of the best months to visit), zoos and parks, and incredible weather.

<http://www.psrconvention.org/home/index.php> for more information



Convention Room Rate: \$129/night  
 1-800-321-2211

The **2018 PSR Convention** will be hosted at The Courtyard San Diego Mission Valley, 595 Hotel Circle South, San Diego, CA 92108. The Hotel is quite nice, with modern rooms, free wi-fi throughout, free coffee in the lobby until 10:30am each day, cafe, pool and many other amenities. Parking for convention registrants and attendees (including the swap meet) is free.

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## The Backshop

By: Gary Butts, MMR, Director



You can't get enough help when it comes to making our Cajon Division run smoothly and make it enjoyable for all of our members, so please help me welcome the latest addition to our Cajon Board of Directors: Annette Palmer. Annette has agreed to take on the volunteer position of Division Donations Chairman (Chairwoman?).

As you may know the Division receives little financial help from NMRA national and so it is up to us to try and gather what funds we can to continue paying for venue rentals, awards, shirts, newsletter printing & mailings, certificates, and the list goes on. We rely heavily on our various auctions to augment the low attendance fees associated with our various meets and events. The more donations we receive, the lower the event fares can be and the more events we can support. Annette has shown herself to be a dependable member of our Division (Member of the Year, 2016) and an amazing donations gatherer as proven at our last year's Ontario Manifest Convention. If you know of any prospective donors of model railroad related items, please don't hesitate to contact Annette.

I hope you were able to attend our last Cajon meet in Perris. This event took the place of our traditional Temecula meet and for the better to be sure. This annual Event is somewhat larger than most of our meets in that it hosts the Region's Board of Directors meeting, meaning that we have visitors from all of our sister Divisions traveling to our meet. The new Orange Empire Railroad Museum venue worked out great with plenty of room for our various clinics, meetings, contests, etc. It was really nice to have a model railroad meet in an area sporting tons of full sized trains that you could approach, touch and if desired, even operate! My wife, Sandy, hogged the Run-One diesel engine run by wining an extra turn or two at the throttle. I couldn't pry her out of the cab!

Anyway, these events are really about the model rail education and interest you can get from the various clinics, seeing the great models offered for display, showing off your latest model work project. For many of us, it is about the social interaction of seeing friends from all over Southern California, Nevada and Arizona. If you are one of our members that don't seem to make it to these events, you are really missing out. It takes a little gumption to join in a model rail conversation but once you open up you will find that this group of model fans are genuine, friendly and knowledgeable. I guarantee that if you come to a couple of meets in a row, join in the activities and conversations, you will find lasting friendships that make the meets special. Come to a couple of meets and give it a try.

CIM3 was a blast as well. I noticed that not too many modelers attended that weren't in one of the module clubs that set up, but then I realized that almost every active member of the Cajon Division was there! We had some 50 club member present and having fun running trains all over the place and only one or two were not NMRA members. Interesting. We had a great time hosting some 60 Boy Scouts in their quest for their Railroad Merit Badge with all of the attending clubs providing for various parts of the merit badge requirements. The food was great and the event was really inexpensive including food, parking and everything. The AP evaluation team was able to award four Golden Spikes and 2 Achievement awards which shows the quality level of the models and modules at the event. We are trying to find funding to repeat this event next year, I hope you can make it.

-gb



## The Buzzard's Roost

By: Dennis Ivison, Superintendent

### Cajon Division Bylaws

I have a rather short column for you in this issue of The Order Board. Several members of your Board of Directors have been devoting time to rewriting the Division's Bylaws. The version we are currently using is the original filing and dates back to March 2001. The current bylaws are out-dated and are out of step with the operations of the other division's in the Pacific Southwest Region as well as the Region itself. The need to take on this project has been discussed at every Board of Directors meeting for a number of months. This past weekend representatives of the Board met at Gary Butts' home and made a concerted effort to complete the revisions. We brought our notes and ideas that we've been accumulating, annotations from past leadership, copies of the bylaws from the other divisions, and PSR documents as well, weaved them all into an acceptable framework, and eureka!

The next step in the process is the draft will go to the full Board of Directors for approval. Once the Board reviews and accepts the revisions the Bylaws will go out to the membership and you will be asked for your approval. Each member will receive two sets of Bylaws for comparison: the original copy which we currently operate under; and the new revised copy which we hope that you will approve. After a review period you will receive a ballot for casting your vote.

I hope that those of you in attendance at the Spring Meet at the Orange Empire Museum, and at the Cajon Invitational Modular Modelers Meet (CIM3) enjoyed yourself. The organizers of the meets have reviewed both events and have agreed on some changes that will make them even better in the future.

Surprisingly, I have had some time to actually get some work completed on the SPCL. I'm hoping that you have enjoyed some success with your layout, or modules as well; maybe you've ballasted some mainline, added a new yard, finished a structure, locomotive, freight car, or some scenery, it's all good, what a great hobby!

Until our next issue, "Bail it in, and hold the brownies to a minimum,"

-di



## MEMBERSHIP ON TRACK

By: Jeff Herrmann,  
Membership Chairman

So many of us in the Model Railroading hobby think that ours is the greatest hobby in the world! At the Cajon Division's recent CIM3 event (see related article) it became pretty obvious to me why we feel that way. In a word, it's because of choice.

Model Railroading offers a variety of activities and scales that can span the interest and skill levels of several generations. Are you a history buff, do you enjoy researching specific eras, industries or geographic areas? Do you enjoy wood working, electrical projects, or carpentry? Do you enjoy model building or have an artistic flair for creating scenery or back drops? At the heart of scale model railroading for most is our fascination with miniatures of all kinds. Many scale model railroaders recall their childhood when a train set allowed them to travel to an imaginary world- as an adult they have found the means and skills to bring some of that to life. The good news is that you don't have to start with any skill at all, just pick an area or two of interest and learn other skills if and when you like.

All of these things and more were on display at CIM3. Participants and presenters ranged in age from 2 to 3 years of age to well over 80 (no- the toddlers were not presenters)! There were several husband and wife teams, dads and sons, a father and daughter and even a few brothers in attendance. I also noticed at CIM3 that despite the variety of commercial products available, model railroading is a creative hobby. If two model railroaders started with identical track plans, their finished layouts would look nothing like each other! The fellowship among model railroaders is great too! So many friendships develop through our hobby. NMRA meets (like CIM3) are a great place to have fun and fellowship with others that share your interest.

Most of us started out in the hobby small; with a simple 4 X 8 plywood at a loop, and maybe a siding. For some of us, today even finding space for a 4 X 8 layout is a challenge. At CIM3 I talked with many modelers that don't have room for a home layout so they joined a modular layout club and just made a 2 X 4 module. Several told me that their club makes arrangements to store their modules too, so they don't even have to find room at the house to store it!

Continued "Members" pg 6



## From the Cloud

By: Per Harwe,  
Webmaster

Welcome to my new column. A new position (Webmaster) warrants a new column. The intention with this one is to give insight as to what's going on with our website. It's not like we have done much changes to the site, but when I had to ask the former webmaster where to find a certain page, I'm sure that some of you could also use a bit of clarification. I will try to discuss one, or two, subjects in each column

Let's begin with *Tools and Tips*. As you all know that's a column in our newsletter but what you may not know is that the website has a page where we keep all previous articles in the series.

If there ever was a gold medal for the best hidden page on the site, this would probably be it. But frankly, there is no better place for it so that's why I bring it up here. If you look under the link "*Resources/Links*" on the Home page and then select "*Resources*" you will find "*Cajon Division Library*" as the first entry. That's where it is hiding.

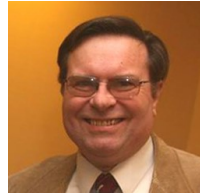
[http://www.cajondivision.org/Library\\_Index\\_Page.htm](http://www.cajondivision.org/Library_Index_Page.htm)

I hope that little excursion will get you curious enough to wander around on the site and discover other little gems that are tucked away here and there. When you find something missing, or outright wrong, please let me know how I can update the page.

As you can see on many pages I have added a "NEW" flag to new entries. I hope that will help you see what has changed. It could be useful especially on pages with long lists, like e.g. "*Events*". I am also adding a change date below the *Cajon* logo in the upper right corner

That's it for the first installment of the "From The Cloud". I would really like to get some feedback as to what you want to see here in future issues. Next time I will discuss the various Events pages.

-ph



## The Show Room

By: James Keena  
PSR Region Contest Chairman

### The Show Room Los Angeles Division 1st Section, Displaying Green Signals

The Show Room this time covers two events that were recently held within the Pacific Southwest Region. Actual railroads would often run trains displaying signals or flags indicating that there is a section or sections of the same train following on the same schedule. First up is that the Los Angeles Division held their Spring Event in Whittier on April 21, 2018. The Show Room was open for displaying member projects for other members and attendees to enjoy. As always at this event, the L. A. Division provides a free lunch as an incentive to encourage members to entered models or photos into the Show Room for display, popular vote and or merit evaluation.

This year there were twelve model entries in the Popular Vote and one photo entry into the Show Room. It was great that these members were willing to display and share their models for fellow members to enjoy. In addition, NMRA Merit evaluations were conducted on four of the models. Here are the results of the people's choice popular vote contest .

#### Steam Locomotives

1st Place Virginia & Truckee # 29 4-6-0  
Tim Johnson



2nd Place Sierra  
Railway # 24 2-8-0  
Tim Johnson

3rd Place Pajaro Valley Consolidated Railroad  
# 6 2-8-0  
Nick Lisica

#### Freight Cars

1st Place Zerolene Tank Car  
Vic Cavalli



2nd Place NCNG RR Boxcar  
Vic Cavalli

3rd Place Pajaro Valley Consolidated RR  
Boxcar # 208  
Nick Lisica

**Passenger Cars**

1st Place Pajaro Valley Consolidated Railroad  
Nick Lisica #4 Coach ([Merit Award](#))

**Structures On-Line**

1st Place Whistle Stop Station  
David Okamura

**Structures Off-Line**

1st Place Hank Station  
David Bailey



2nd Place Pacific Coast Steamship Co. Office  
Nick Lisica at Moss Landing

**Photos Color Prototype**

1st Place Out to Pasture  
Tim Johnson

Of a special note, David Bailey just signed up for a NMRA Rail Pass at SpringRail in order to enter his model, which won 1st place in the Popular Vote for Structures Off-Line. Welcome David and look forward to seeing many more of your modeling.

I want to thank the volunteers that assisted in the Merit Evaluation of models.

In addition, as part of the SpringRail event at Whittier this year, a special thanks goes out to the Orange County Module Railroaders for setting up their railroad. They also did a special "Kids Run Trains" on Sunday morning that was thoroughly enjoyed by the children and adults alike.

### The Show Room Cajon Division 2nd Section, Displaying No Signals

The Cajon Division held their Spring Event at the Orange Empire Railway Museum in Perris on April 28, 2018. A total of nine (9) models were entered into the Show Room, which was located in the party caboose within the museum. Five (5) of the models had merit evaluations performed. The results are as follows for the popular vote contest and with merit evaluation awards where appropriate:

**Diesel and Other Locomotives**

1st Place California South Coast RR Narrow  
David Okamura Gauge Gas Mechanical Switcher

**Freight Cars**

1st Place Missouri Pacific 45' Gondola  
Morrie Fleishman



2nd Place CSC Railroad Outside Frame  
David Okamura Narrow Gauge Boxcar

**Caboose**

1st Place CSC Railroad Narrow Gauge  
David Okamura Bobber Caboose

**Structures On-Line**

1st Place Open Roof Rectangular Water Tank  
Gary Butts, MMR ([Merit Award](#))



2nd Place 50,000 Gal. Water Tank  
Dennis Ivison ([Merit Award](#))

3rd Place Overhead Fuel Tank  
Dennis Ivison ([Merit Award](#))

**Structures Off-line**

1st Place Hurst Boiler  
Jeff Hermann & Welding



2nd Place Michael's Plumbing Supply  
Morrie Fleishman

As you can see from the results, many categories only had one model entered. I encourage you to at least display your models as part of the People's Choice Popular Vote. Who knows, you could be a Winner.

Your opportunity to display or have merit evaluation performed on your models is coming up in September at the PSR Convention in San Diego. Look forward to seeing you and your models.

-jk



## The Social Media Report

By: *Morrie Fleishman,*  
*Social Media Chairman*

### A FACEBOOK GROUP FOR CAJON

Cajon has a Facebook Group called Cajon Division – PSR Group.

The subgroup is a closed group and to obtain the ability to post and comment, you need to have your membership approved.

The idea behind having a Cajon Facebook Group is to allow individual members to post pictures, questions, etc. for other members to see and comment on, if they so choose.

I have been a member of the NMRA group and it has been interesting to look at the progress pictures that members post on the page and the comments and questions that have been asked and answered.

A side benefit in that being a member of a Facebook group is that it allows individuals to use the private message function to contact another member offline. That means addresses, phone numbers, email addresses given over a private message will not be visible to other group members. An example of the use of this function would be to ask for help with a problem, to ask where something can be purchased, or to invite someone over to help run their layout.

Objectives of the group are:

The Cajon Division of the Pacific Southwest Region of the National Model Railroad Association is the devoted to the development, promotion, and enjoyment of the hobby of model railroading.

If you are a member of the Cajon Division or any of the other divisions of the Pacific Southwest Region of the NMRA you are eligible to join the group. See the instructions for joining below.

If You Have a Facebook Account:

All you have to do is send an email me at [Cajonfb@cox.net](mailto:Cajonfb@cox.net), with your requested email address and I will send you an invitation. When you get the email, you must log into Facebook, then go back to the email and click on the Join Group link. After that it will send me a note on the Group page and after I validate your Cajon/PSR/NMRA membership, I will approve your application.

If You Do Not Have a Facebook Account:

Log into Facebook and create an account.

Send me an email to me at [Cajonfb@cox.net](mailto:Cajonfb@cox.net) with your requested email address and I will send you an invitation. When you get the email, you must log into Facebook, then go back to the email and click on the Join Group link. After that it will send me a note on the Group page and after I validate your Cajon/PSR/NMRA membership, I will approve your application.

Using the Group:

#### POSTING

1. Feel free to share photos or videos of your modeling efforts. We have all different talent levels in the group and we can all learn from everyone's experience.

2. Things NOT to Do;

Do not post advertisements for anything other than NMRA, PSR, and Cajon division functions, train shows or club events. Product advertisement is not allowed - there are plenty of other places to find items for sale.

PLEASE, no politics, religion, swearing, racist remarks, degrading other members, and/or any other inappropriate remarks. Remember, this is a G rated group and model railroading is supposed to be fun.

Lets get to know each other a little better and have more fun with Model Railroading.

*-mf*

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*From "Members" pg 3*

NMRA, though our local Cajon Division, offers many events and opportunities to get together with fellow model railroaders and share, expand and improve our hobby. Some, like CIM3, are exclusive to members of NMRA and our special guests. I am proud to be a model railroader and a member of the NMRA!

*-jh*



## THE ORDER BOARD

The Order Board wants your input! Have a good modeling tip or interesting article? Contact the Editor at : [Editor@CajonDivision.org](mailto:Editor@CajonDivision.org) to get the details and see your Ideas in print! NMRA Achievement points apply!

## OERM SPRING MEET 2018

By Per Harwe



### Cajon Division's "Traditional" Spring Meet!

I call it "Traditional" because that's what we hope it will become. Our Spring meet in Temecula had become a very popular tradition until City of Temecula no longer wanted to rent the facility. We found Orange Empire Railway Museum, OERM, in Perris, CA and they welcomed us with open arms. The Meet was held on April 27<sup>th</sup> and 28<sup>th</sup>, 2018. We kept our traditional format and it was a well-attended meeting with lots of activities both inside and outside.

As usual we kicked off the event on Friday evening with a welcome mixer followed by our popular bingo game. We had quite a collection of prizes for the lucky ones who managed to get their bingo cards filled the right way (the author was not one of them).

Since OERM doesn't have many separate rooms for clinics we had to improvise. We used two car barns, a corner of the Town Hall and an outdoor location for the photography clinic. In addition to these localities we also had access to the Party Caboose where the model contest and the PSR Board Meeting were held.

We had eight clinics and Superintendent Dennis had managed to get all new clinics, never before held at a Cajon meeting! All of the clinics were held on Saturday. I could not attend all of them (naturally) so the report will be a bit empty for most of them. My apologies go out to those clinic holders for which I could not get a picture due to the time and space constraints)

#### #1 Making a Scene Ken Kirkwood



Ken Kirkwood had built a module for this clinic to show what can be done by adding simple details to improve the looks of a scene.

#### #2 Photographing the Prototype - Tim Johnson



Tim Johnson had an outdoor clinic teaching how to take better photographs by focusing on the details.

#### #3 Lineside Details – John Taranto



John Taranto had a very interesting presentation of what types of lineside details you easily can add to your layout and how to make some of them yourself

#### #4 Making Your Own Decals – Paul Stoner

#### #5 Filling the Forest – Joel Morse

Joel Morse showed how to create the vision of a large amount of trees at minimal cost and effort.

#### #6 Weathering Freight Cars – Pete Steinmetz



Pete Steinmetz started his clinic with a walk-around the museum grounds to get ideas and inspiration, after which the group moved indoors to use what they had seen when weathering their cars.



#7 Raspberry Pis for Layout Control – *Jim Smith*



Jim Smith showed how to build a device that hooks in to your DCC power and allows you to run the layout from your smartphone.

#8 Detailing N-scale Diesels – *Wolf Balandran*

Wolf Balandran gave tips on adding details to your N-scale diesel engines.

Saturday morning was also the time for contest judging. We had a good number of models and I can imagine the judges had a hard time giving them all fair scores.



Morrie Fleischmann got 1<sup>st</sup> place in Structures Off-Line with his “Michael’s Plumbing Company”



David Okamura’s California South Coast Steeple Cab switcher got 2<sup>nd</sup> place in the popular vote.

The awards were given out at a ceremony in the evening.

While the PSR Board had their meeting the rest of us had two other events in the program.

Run-1, which gave you an opportunity to run a diesel engine on real tracks. This year we had two runs: One as a prize in a raffle for early-bird registrants and one where you bought the ticket on-site. Tom Clabaugh was the instructor from OERM.



SP 1474 arriving for the Run-1



Sandy Butts keeping a watchful eye as the 1474 backs up



The other Saturday afternoon event was a tour of the museum grounds led by an OERM docent. Besides the car barns "in the front" we also got to see what the museum has hidden away in the back barns. Their pride and joy, a fully restored Santa Fe FP-45 #98 is close to coming out of the barn after a very long restoration. It is still wrapped in plastic so the picture doesn't show it in all its glory.



Right next to it was UP E8A #942 waiting to come out as well. It has not been restored to the extent of the FP-45 but it is still looking very good.



Included in the price of admission was a catered BBQ dinner. The dinner was cooked on-site in a steam locomotive.



The dinner was very tasty and everybody dug in, many for seconds



Following dinner, while we still had everybody's attention we handed out awards.

Awards for **Popular Vote** for the models went to:

- Gary Butts, 3<sup>rd</sup> place for Open Roof Rectangular Tank
- 2<sup>nd</sup> place Tie:
  - David Okamura, California South Coast NG Bobber Caboose
  - Morrie Fleischmann, MP 45ft. Gondola
  - David Okamura, California South Coast Steeple Cab Switcher
- Jeff Herrmann, 1<sup>st</sup> place for Hurst Boiler & Welding

The **Judges' awards** went to:

- Dennis Ivison, 3<sup>rd</sup> place for Overhead Fuel Tank
- Dennis Ivison, 2<sup>nd</sup> place for 50,000 Gal. Wooden Water Tank
- Gary Butts, 1<sup>st</sup> place for Open Roof Rectangular Water Tank
- Morrie Fleischmann, 1<sup>st</sup> place for MP 45ft. Gondola
- Morrie Fleischmann, 1<sup>st</sup> place: Michael's Plumbing Company

Following **Merit Awards** were awarded:

- Dennis Ivison, 50,000 gal Wooden Water Tank
- Dennis Ivison, Overhead Fuel Tank
- Gary Butts, Open Roof Rectangular Tank

**Certificate of Achievement:**

Carl Heimberger, Author



The awards ceremony was followed by the Hobo Auction; an event as popular as ever and one that turned out rewarding for many attendees.

All in all it was a very successful weekend. I'd like to extend a warm Thank You to the organizers and to all participants for making this such a success! I hope that we can repeat this event at OERM a year from now. See you then.

-ph



## “Tools & Tips”

By Joel Morse

### The Automated Brakeman

The idea of the AUTOMATED BRAKEMAN comes from an old article in one of the magazines, but I think that version of the Brakeman accomplished a similar result, but in a slightly different way.

This lineside BRAKEMAN is a useful bit of automation to be applied on your layout where a train has to be stopped on a grade, and cars cut out, to do switching. The BRAKEMAN can also be used to hold cars on a customer spur located on a grade.

On my layout, the BRAKEMAN is installed where the local needs to be left on the main on a fairly steep grade, to work a trailing point customer spur. I used an N scale figure of a brakeman and a red sign board next to the tracks to identify the location. I also painted the BRAKEMAN ARM hazard yellow to make it a bit easier to see which position it is in.

When in the “CLEAR” Position, the BRAKEMAN ARM sits unobtrusively by the side of the tracks behind the Brakeman figure and his sign.

In the “BRAKE SET” position, the engineer stops the train so that the BRAKEMAN ARM is just behind the rear wheels of the uphill truck of the first car to be left on the grade (under the frame).



The BRAKEMAN ARM, rotates under the frame and across the tracks just behind the wheels, and acts as a wheel stop. When the cars to be switched are cut out, the remaining cars roll back until the uphill wheels hit the BRAKEMAN ARM.



I’m familiar with the SwitchMaster TM rotary turnout stall motor because I use them (in combination with Frog Juicers) for the few turnouts on my layout that are not hand thrown. If you are unfamiliar with this motor, it’s a very simple, yet versatile 12 volt dc turnout rotary stall motor, where the speed is controlled by the value of the chosen

resistor. The Automated Brakeman is activated with the simplest of model railroading electrical components, the good old Double Pull/Double Throw (DPDT) toggle switch located in the fascia.

The variable speed rotary action of this motor lends itself to a variety of layout automation applications other than turnout motors. The Automated Brakeman is just one of a number of automation tasks on a layout that it could be used for.

#### Bill of Material:

- One SwitchMaster TM stall motor, available from Builders in Scale ([builders-in-scale.com](http://builders-in-scale.com)). All of the materials you need to use a SwitchMaster TM for its primary purpose as a turnout motor are provided with the motor (except the DPDT switch) and may be used for the Automated Brakeman.

- One piece of 1/16 brass tubing as the CRANK SLEEVE. The SwitchMaster TM comes with a 1” piece of tubing, but it may not be long enough for this application, if you are working in HO or a larger scale. For scales larger than N, or for extra thick roadbed and subroadbed, you may need a bit more than 1” of brass tubing, (length needed will depend on the thickness of your subroadbed, your scale, and the height of the installation of the BRAKEMAN ARM).

- One piece of brass rod from between .030 and .040 thick (the heaviest gauge that will slide smoothly and easily in the 1/16 tubing) at least 6 inches long, to use as a substitute Crank Wire/BRAKEMAN ARM (kit comes with .030 x 5 inch steel wire).

- One 800 Ohm (or lower) resistor. The SwitchMaster TM comes with a 1200 Ohm resistor, which moves the motor pretty slowly – great for a turnout, but a little too slow than is needed for this application.

- One double pole, double throw (DPDT) toggle switch or DPDT type switch of your choice.

#### Installation:

Generally speaking, you will follow the instructions for installing the SwitchMaster TM motor that are provided in the directions that come with the motor. However, there are a number of key changes in the installation.

1. Identify the location or locations on your layout where you want to install your Automated Brakeman.
  - a. The BRAKEMAN should be located downhill of the turnout for the spur or spurs you will be switching. Or, if you just want to be able to hold cars on a siding or spur, as far uphill on the track as needed to accommodate the number of cars needed.
    - i. The location you choose can be any number of cars downhill from the turnout. I located my BRAKEMAN five cars downhill from the turnout because of the length of the spur and the resulting maximum number of cars that could be put onto the spur (4). This arrangement has worked well during my operating sessions.
  - b. Before finalizing the location of the BRAKEMAN, double check that the location will be free of any

interference or obstructions under the Benchwork at the location you have chosen. Note that the SwitchMaster TM does require four to six inches of clearance from obstructions to rotate.

- i. Note that the SwitchMaster TM instructions provide an alternative installation configuration to the one discussed here, which may work better for you.

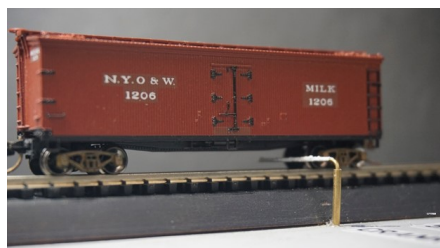
2. Determine the location for the CRANK SLEEVE and the height of the BRAKEMAN ARM.
  - a. Use your NMRA Track Gauge to confirm the location you want is far enough away from the rails to assure that the BRAKEMAN ARM and CRANK SLEEVE ( which holds the BRAKEMAN ARM), will not interfere with passing locomotives, rolling stock or cleaning cars. (I didn't consider this and my Aztec cleaning car actually clicks as it brushes past my BRAKEMAN in the CLEAR position.)



3. Drill the PIVOT HOLE. A 5/64th bit will give you a snug fit for the 1/16 brass tube CRANK SLEEVE. Drill the PIVOT HOLE through the roadbed and subroadbed. It is important that the PIVOT HOLE be as vertical as possible.

4. Determine the height above the rails the BRAKEMAN ARM needs to be installed so that the back of the wheels would rest against it, but without the ARM touching the rails (touching both rails would cause a short) or hitting underframe equipment.

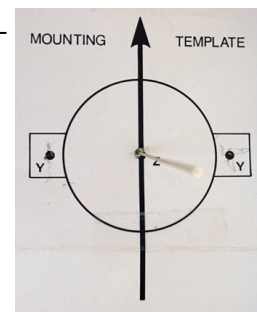
5. When establishing the height of the BRAKEMAN ARM across the tracks, be sure to consider the underframe equipment of your rolling stock such as brake cylinders, hopper chutes, truss rods and the like. The ARM must pass freely between the top of the rails and the any underframe equipment during the SET BRAKE sequence.



6. Determine the length of the CRANK SLEEVE by measuring from the height above the rails you established as the height for the BRAKEMAN ARM, to the bottom of the subroadbed (flush with the bottom of the subroad bed).
  - a. Note that the bend in the BRAKEMAN ARM will reduce the height needed for the CRANK SLEEVE, by the thickness of the wire you use. This may, or may not be a critical difference, but keep it in mind.
  - b. Cut the CRANK SLEEVE to length with any tool that will not crush the brass rod (pipe cutter, razor saw or cut-off wheel). Clean any burrs from the inside of the cut.
  - c. Dry fit the CRANK SLEEVE into the PIVOT HOLE to confirm the length is correct. If correct, remove the CRANK SLEEVE, put a small drop of AC glue on the outside of the CRANK SLEEVE and slide it back into the PIVOT HOLE – cure the AC.
7. Determine the length of your BRAKEMAN ARM in the BRAKE SET position – this is the distance from the CRANK SLEEVE to beyond one or both rails.
  - a. Bend the BRAKEMAN ARM to a 90 degree angle so that the ARM extends across both rails. (One rail is adequate for N Scale)
  - b. Slide the remaining length of the brass rod, the portion not acting as the BRAKEMAN ARM into the CRANK SLEEVE. Confirm that the height of the BRAKEMAN ARM is correct.
    - i. If the 90 degree bend does not result in the ARM extending as far as you want it to, or the height is not correct, you will likely need to use another piece of brass rod. It is very difficult to reshape this material. Arm Length

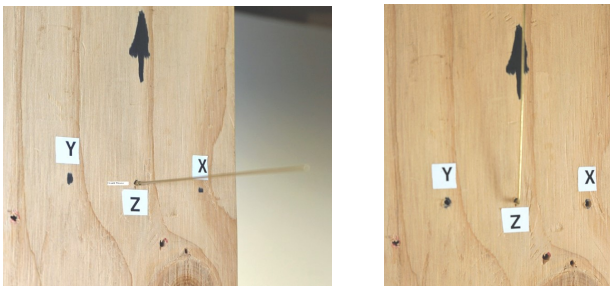


8. Locate the MOUNTING TEMPLATE and cut it out of the packaging.
  - a. Using an awl, icr pick, or similar tool, punch holes through the MOUNTING TEMPLATE at the Locations marked “Y” and “Z”.
  - b. The “Y” Points are the Location of your MOUNTING SCREW holes, and “Z” will be the point where the CRANK SLEEVE and brass rod come thru the subroadbed.



**Time to go under the layout.**

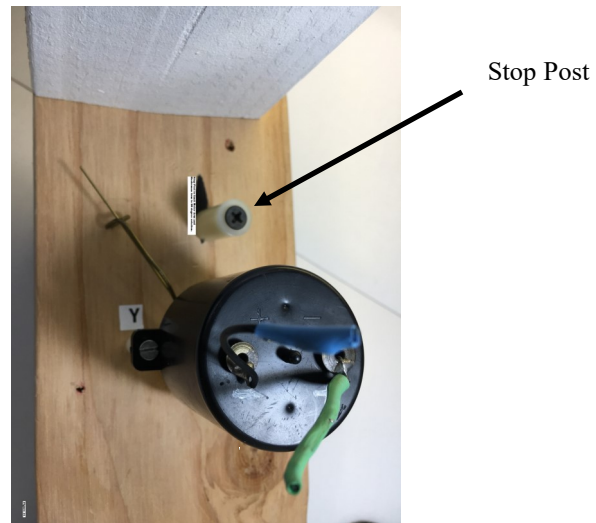
9. Place the MOUNTING TEMPLATE on the underside of the subroadbed so that the BRAKEMAN ARM wire comes through the point marked "Z".
  - a. Rotate the MOUNTING TEMPLATE so that the Arrow points perpendicular to the BRAKEMAN ARM in the activated position which would be across the tracks. Hint: The arrow should point along/parallel to the tracks, not across the tracks.
  - b. Make a mark at the end of the arrow on the subroadbed, and draw a line along the MOUNTING TEMPLATE Arrow, through Point "Z", and beyond the MOUNTING TEMPLATE onto the subroadbed on the other side of the Template.
10. Remove the MOUNTING TEMPLATE.
11. Pull gently on the brass rod extending through the CRANK SLEEVE to below the subroadbed, and use your thumb to bend it flush with the bottom of the subroadbed (90 degree bend) in line with the MOUNTING TEMPLATE Arrow line you drew on the subroadbed.



12. Mount the motor under the layout
  - a. Use a 3/32nd bit to drill holes at points "X" and "Y".
  - b. Mount the motor per the SwitchMaster TM instructions after reviewing Step 13.
13. Determine the uphill and downhill direction swing of the BRAKEMAN ARM. (See Figure 12)
  - a. While mounting the motor, you will want to rotate the MOTOR ARM to the appropriate side of the MOUNTING BUSHINGS, so that the rotation of the MOTOR ARM rotates the BRAKEMAN ARM in the uphill direction when the BRAKEMAN ARM is activated, and in the downhill direction to clear the tracks.
    - i. NOTE: If this is done incorrectly, your BRAKEMAN ARM will rotate into the trucks of the car, rather than under the car into the backs of the wheels. And you will have to go back under the layout to re-orient the MOTOR ARM on the other side of the MOUNTING BUSHINGS.
    - ii. The figure shows the correct orientation of the wire.
  - b. Since the motor direction is controlled by the DPDT switch there is really no wrong way to install the motor
  - c. Confirm that the rotation is correct for the bends in your BRAKEMAN ARM.



14. As designed, the MOTOR ARM will rotate 180 degrees (between the MOUNTING BUSHINGS) and then stall. However, we only want the MOTOR ARM to rotate 90 degrees. Therefore, install a "stop post", along the line you drew using the MOUNTING TEMPLATE Arrow as your guide.
  - a. The "stop post" can be as simple as a screw long enough to stop the swing of the Motor Arm, or a nylon bushing screwed to the subroadbed.
  - b. The location of the "stop post" can be used to increase or decrease the rotation of the BRAKEMAN ARM in the BRAKE SET or CLEAR position.



### Electrical Connections

1. The SWITCHMASTER MOTOR uses 12 volt DC power and can be connected to your other turnout motor power supply.
2. Be sure to prewire the Motor with the resistor and appropriate lengths of wire, so you do not have to solder under the layout.
3. Use a lower rated resistor to speed up the motor. It comes with a 1200 ohm resistor, I used an 800 ohm resistor, but this is a personal choice.

Enjoy your Automated BRAKEMAN and your new ability to switch cars on a grade, with no runaways!

-jm

# CIM3

By Jeff Herrmann



**“Wow! This was great!”**

That was typical of the comments we heard at the Cajon Invitational Module Modelers Meet held June 15-17th at the Irvine Ranch Outdoor Education Center in Orange, CA. The meet was sponsored and conducted by Cajon Division of the National Model Railroad Association, PSR. Five Southern California modular railroad clubs set up their layouts in Harrison Hall at the IROEC for a weekend of running trains and fellowship. Four scales of modeling were represented; Z, N, HO, and On30. Participating modular clubs were: ZoCal, N-Track Express, OC “N”gineers, Orange County Module Railroaders, and California South Coast Modular.

Club members started arriving right after lunch on Friday to begin their set up and all were “up and running” within a few hours. The fun of running trains and fellowship was the main attraction on Friday evening.

Saturday morning started bright and early at this event because we also hosted over 60 Boy Scouts who were interested in earning their Railroading Merit Badge. The Irvine Park Railroad got it started with instruction on how railroads operate safely and let each of the Scouts ride the train! We are grateful to Charles Backes and his crew at the Irvine Park Railroad for his leadership in making it happen!

After wrapping up at the Irvine Park Railroad, all the Scouts and their leaders came to Harrison Hall at the Irvine Ranch Outdoor Education Center to receive expert instruction (and testing!) on the rest of the Merit Badge requirements from NMRA members associated with the modular clubs. Scouts rotated around the facility to get instruction on everything from how locomotives generate power, to modern signaling and careers in railroading.

Based on an informal poll, it seems that the highlight of the day for the Scouts was building an HO Scale box car and participating in the Time Saver contest. At the conclusion of the Merit Badge program quite a few of the Scouts and their parents stayed to visit the modular layouts, talk with NMRA members and run trains!

The balance of the weekend, until late Sunday afternoon, was spent running trains, a member only swap meet, and fellowship between the clubs. Since this was a sanctioned NMRA event, we also had a number of NMRA members present their work for Achievement and Merit Award Evaluations and Judging. Congratulations to Golden Spike recipients: Oscar Arrieta, William Marecek, Kevin Spady, and Paul Stoner. Kevin Spady also earned 6 Merit Awards for Buildings and Achievement Awards for Buildings and Scenery!

Meals were cooked on site by a team of NMRA BBQers and lots of help from clubs that supplied covered dishes for our Saturday evening feast! We are looking forward to the possibility of conducting another event like this next year; You won't want to miss it!

-jh



Pacific Coast Region  
**Enduring Rails**  
 2018 Convention

*By Gary Butts, MMR*



A small group of our PSR Region members from the LA and Cajon Divisions traveled to Ronert Park, California this last April to attend our Sister Region's annual convention. What a great time! These guys really know how to put on a great event. Their convention was well attended with over 200 attendees, despite the large area and great distances that their Region covers.

They had the usual model railroad events and clinics but many were new to me. They also featured a commercial vender show and a swap meet but did not hold an auction. Our small group of PSR guys (& gal) was treated royally with a table reserved up front for our group at the banquet.

I was honored to be asked to help with their Achievement Program evaluations and was amazed at the number of really great models. Several easily earned Merit Awards. Sandy and I made it to a few of the local member layouts which were also impressive. The highlight for us was a visit to the Sturgeon steam powered lumber mill for an exclusive live tour and log sawing demonstration. What a great Tour!

If you get the opportunity to visit one of the PCR conventions be sure to take it! -gb



The PSR group:

Cajon-  
 Ed Hall  
 Sandy & Gary Butts  
 Bob Chaparro

LA-  
 James Keena



Highlights from the PCR Enduring Rails Convention



NMRA PSR  
**SAN DIEGO EXTRA**  
 3704-1  
 July 21st

A group of our Los Angeles and Cajon NMRA Division members, family and friends are all traveling to the San Diego Santa Fe Depot where we will meet with a similar group of San Diego Division modelers for a day trip to the Balboa Park Model Railroad Museum. This visit will get us in for an exclusive behind the scenes visit to the museum's 27,000 sq. ft. model railroad exhibit featuring model layouts from the San Diego Model Railroad Association, La Mesa Model Railroad Club, San Diego Society of N Scale, San Diego 3-Railer Club, and Centennial Railway Garden Club.

In order for all of us to arrive in San Diego at the same time, all interested members and guests are boarding the same Amtrak Pacific Surfliner as it makes it's way South from Los Angeles to San Diego along Southern California's Amtrak coastal route. A fun ride in and of itself! We have a little room left.

See our Cajon Web Site for the information Flyer:  
[CajonDivision.org](http://CajonDivision.org)

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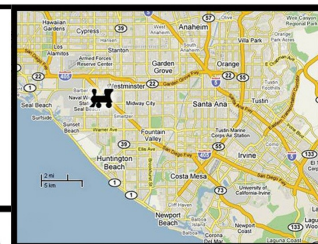
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**Coming From North OC/LA:**

- Get on 405 South
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- Turn Right on Edwards Street (first major light)
- Drive over big hill (405), at bottom of hill, make right turn on Industry Way



# CIM3

Cajon Invitational Module Modelers Meet  
June 16th, 2018



The Cajon Division, Inc.  
c/o Gary Butts, MMR  
5991 Kenwick Cir.  
Huntington Beach, CA 92648

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