HAVING FUN WITH TRAINS

JUNE 2025 | FREE

MRH

MODEL RAILROAD HOBBYIST

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- Beginner ops: coordinating trains
- Rebuilding a layout section, part 3
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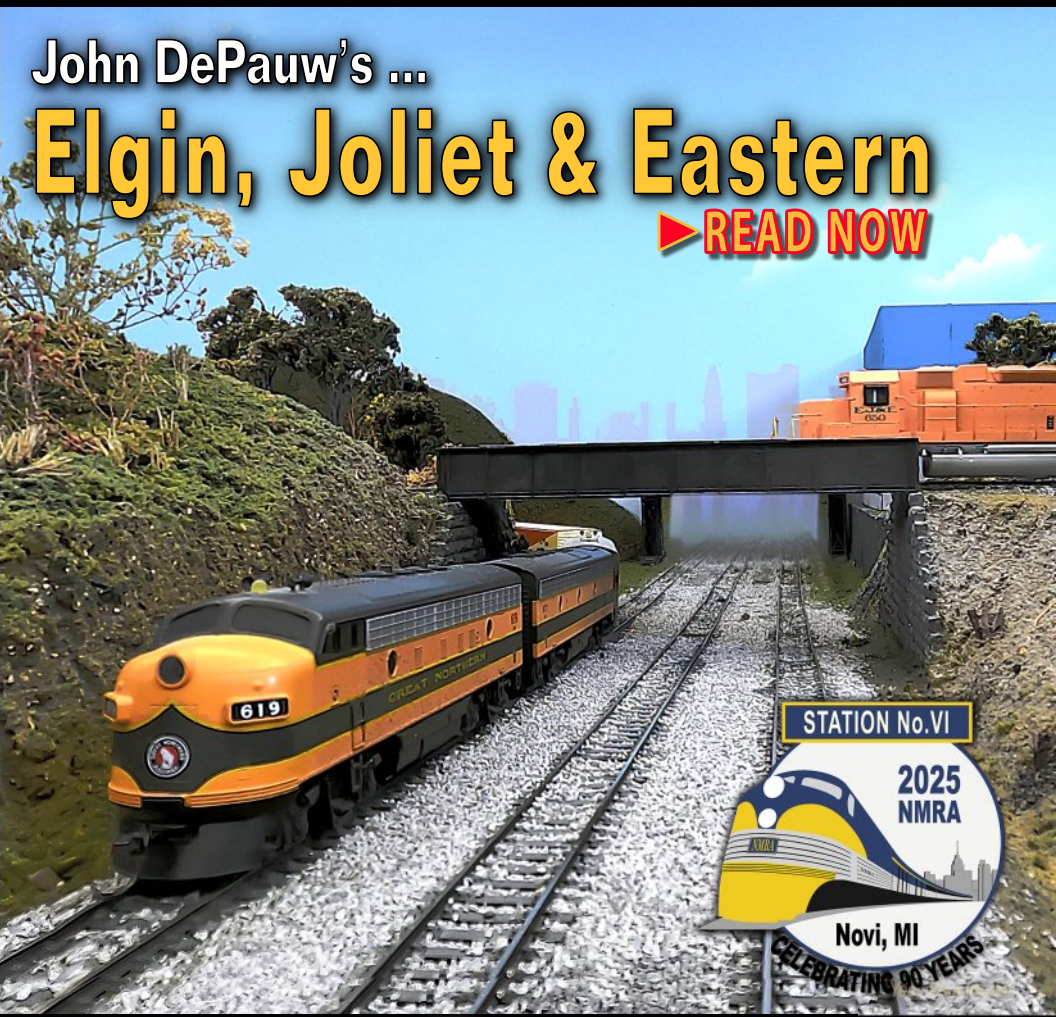
... and more inside!



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INDEX

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HAVING FUN WITH TRAINS
MRH
MODEL RAILROAD HOBBYIST

Model Railroad Hobbyist | June 2025 | #184

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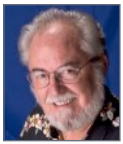

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A - L

MRH Sponsors | 2

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Table of Contents | MRH

June 2025

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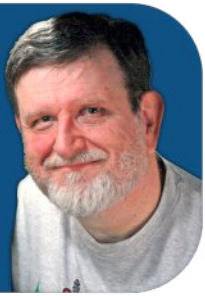


Model Railroad Hobbyist | June 2025

JOE FUGATE ASKS "WHAT ARTICLES WOULD YOU LIKE TO SEE?

VIEW READER COMMENTS

SO HERE'S A QUESTION: WHAT ARTICLE TOPICS WOULD YOU LIKE TO SEE US DO IN *MRH / RUNNING EXTRA?* Thanks to our last reader survey we did, I believe I have a pretty good idea.

Our reader surveys get a good response, generally around 5500 or so. That's enough we have a 99% confidence the survey results are within plus or minus 2.5% of what a 100% readership response would be. So this is a good representation of the postion of all our readers.

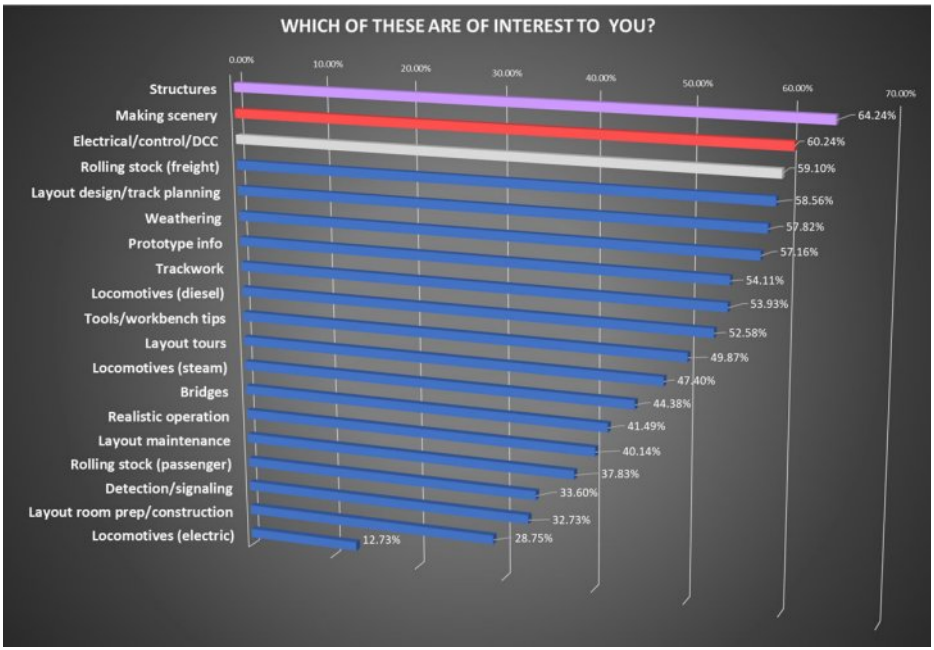
What topic categories are of greatest interest?

One question we ask is: what topic categories are of greatest interest? Then we provide a list with ~20 topics to pick from. On the next page, I provide a chart with the survey results for this question [1].

Of particular interest to us are the top three:

1. Structures
2. Making scenery
3. Electrical/control/DCC

We have our regular monthly feature, *Electrical Impulses*, so we mostly have that covered already.



1. Our most recent survey response to our question on which topics are of greatest interest to you?

It just so happens the cover story for the *July MRH* is two different ways to model a water tower. Coincidence? Not really!

However topic 2, making scenery, is running rather short in our backlog. If you're of a mind to write something for us, how to do some scenery technique is at the top of our list.

The next three most popular topics we also want to note:

4. Rolling stock (freight)
5. Layout design/track planning
6. Weathering

We consider weathering to actually be a form of scenery modeling, so it's no surprise that's high in the list. Last month, *Running Extra* featured a cover story on weathering a

transition era freight car by MRH Associate Editor emeritus, Don Hanley. Coincidence? Again, no not really!

Bringing up the rear

The other thing I like to do with these surveys is to look at the least popular six or so article topics:

14. Realistic operation
15. Layout maintenance
16. Rolling stock (passenger)
17. Detection / signaling
18. Layout room prep / construction
19. Locomotives (electric)

The fact fewer modelers are interested in passenger car modeling or in electric locomotive modeling isn't a big surprise. Let me also

say that just because a topic rates lower doesn't mean we should never cover it. I don't like publication by formula, so if we get a good passenger car modeling article or a nice article on modeling an electric locomotive, we will publish it.

Some topics we cover now and then just for the good of the hobby and phoey on the survey stats! We just don't cover them as regularly.

But that leaves the other four topics: realistic operation, layout maintenance, layout room prep/construction, and detection/signaling.

I've often discussed how operation articles tend to rate low, and this further substantiates that. However, for the good of the hobby, I believe operation needs to be covered, just in small bite-sized chunks.

A full blown ops article tends to make people's eyes glaze over, its so filled with process and procedure. It reminds many of their day job, and the hobby is about *escaping* that daily grind, *not embracing* it.

But taking ops in small doses is actually doing well for us. One of the highest-rated regular features in MRH has been my new two-page ops column. That shows if ops is presented simply and with a focus on relevance, there's a lot of curiosity about it.

Maintenance is not a popular topic for obvious reasons. It's just not a lot of fun, so why glorify it with an article?

That said, I consider track and wheel cleaning to be a maintenance topic, and our breakthrough findings on how to keep things clean longer has been quite popular. Show how to *reduce* your maintenance burden and that's going to be popular.

That leaves layout construction and detection/signaling. Building benchwork gets regularly covered in *Model Raillroader* with their seasonal project railroads, so I think this topic actually has been somewhat over-exposed in the hobby press already.

That said, I do think there's some room for a new spin on this old topic such as building a layout using TOMA (The "One Module" Approach), a layout building method we promote.

As for detection and signaling, that falls under electrical to a large degree, so if we have a signaling article we often will run it in *Electrical Impulses.*

What about new hobby tech topics?

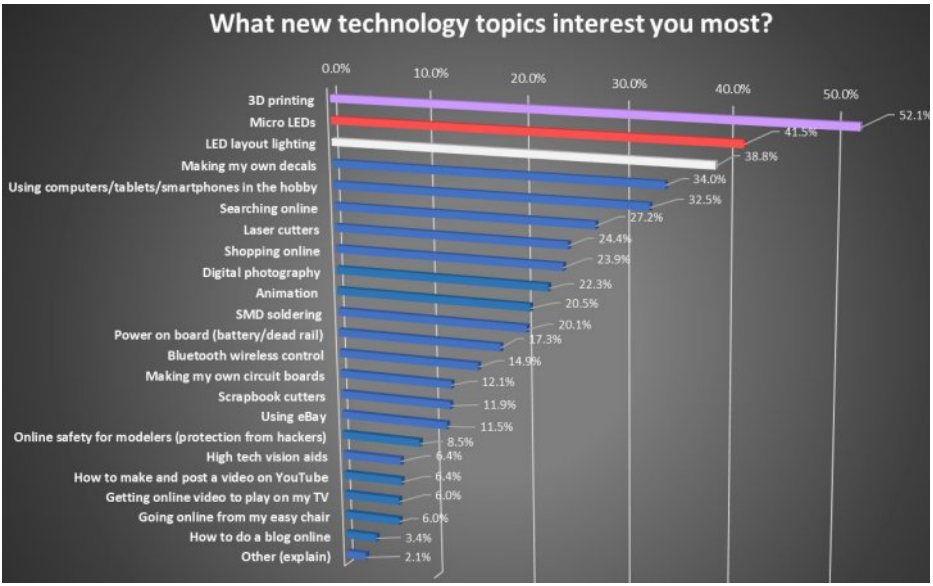
There's also all the new hobby tech that's coming on the scene like 3D printing and battery power. Which of those topics are of interest?

We listed over 20 possible tech topics in our survey. The results, generally speaking, are not all that surprising.

The most popular is 3D printing. Notice we're running a 3D printing series in Running Extra and we're just over halfway through it at this point. We have another three articles still to come on this topic. Coincidence? Not really!

Next comes using the newest LEDs in the hobby, both for lighting locos and structures, as well as lighting the layout overall.

We recently featured some articles on the *Just Plug* LED system as well as doing structure interior detailing including using LEDs for lighting.



2. Our most recent survey response to our question on which new hobby tech topics interest you most?

But we can always use more articles on using LEDs, so keep that in mind if you're thinking of sending us an article.

One of the survey options was to provide your own specific topics you'd like to see us cover in the comments. We tallied those responses and here's the results in order by how many mentions each one received:

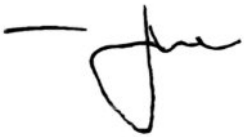
1. LCC
2. Any kind of wireless control
3. White decal printing (ALPS replacement)
4. Layout signaling
5. Photo-realistic cardstock structures
6. Remote operating sessions (Covid got me thinking about this)
7. CNC milling
8. Train simulator software
9. Replacing old motors in locos

10. Fiber optic lighting
11. Making your own castings
12. Doing stuff online isn't new!
13. I'm too old to get invested in new technology …

The last two comments provide some mild humorous relief. Someone always has an opinion as to why we should not do something, hah!

Anyhow, this is a pretty good list. Ironically, one of the more popular tech topic requests is how to do signaling!

If you're thinking about sending us an article, now you know what our readers are wanting to see. If you have anything you could contribute on any of these topics, please send it along. ☑



Last issue likes

Most liked articles in **May 2025 issue** of *MRH* are:

1st Electrical Impulses: Deep cleaning your track
2nd Publisher's Musings: Time for a manufacturing BHAG?
3rd Let's talk ops: More on determing trains to run

Most liked articles in **May 2025 issue** of *Running Extra* ...

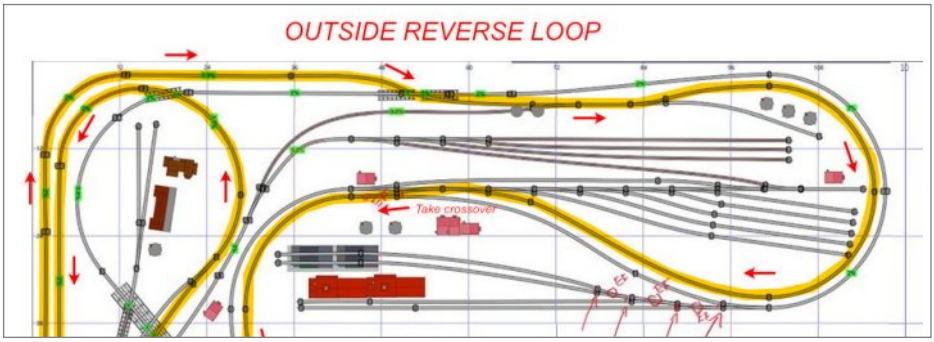
1st Writing up your layout's history
2nd Limited Modeler: Making loco roster decisions
3rd Getting Real: Working the Cementipede

If you want more of this type article, then like the article!
Click the *Give us a like* or *comments* button on each article and press the like button on the article's forum page if you want to see more articles like these. ■

Best of the MRH FORUM THIS MONTH

Model Railroad Hobbyist | June 2025

Compiled by JOE FUGATE



Solving reverse loop issues

VIEW READER COMMENTS

New *MRH* forum member **fmet** (Fritz E.) posted a request for help identifying any reversing loops on his track plan, and what to do about it to eliminate the short's he's seeing.

Several folks chimed in and clearly marked out the reverse loops on his plan and where to gap the rails and set up reversing sections.

See the full thread for a full discussion of how to locate reverse loops and what to do about them.

View the full thread on the MRH website

▶ *MRH'S* MONTHLY GREAT MODELER POSTS

1. MRH forum member and MRH author Thom Driggers asked about prototype railcars he's seen that project laser beams on the track. A modeler at an RPM meet even modeled one, complete with simulated lasers on the railhead as you can see here!

Boxcars cars with red lasers?

MRH forum member and MRH Author Thom Driggers asked ...

"I saw this older box car with two boxes under the frame emitting red laser towards the tracks. Anyone actually know what this car is and why they use a box car? No speculators please, I can speculate as well, just the facts ma'am."

Several forum members gave Thom his answer: It is a rail geometry scanner. They seem to be used to govern when the rail grinding machines get called out. Forum member **bdhicks** added this response:

"At the Northstar RPM meet a few months ago someone had a few different models of these [1]. I did not catch the modeler's name, though."

Read the full thread for more details.

View the full thread on the MRH website

2. MRH forum member Laming (Andre M.) asked forum members to post their favorite tar paper recipes. He posted this photo of his structure where he uses masking tape painted dark gray to represent the tar paper.

Favorite tar paper recipes?

MRH forum member **Laming** (Andre M.) asked folks to post their favorite tar paper technique on the forum. Andre posted his own efforts in [2]. Many others responded with a good number of alternative methods, including posting more photos.

One method involved using talcum powder mixed into the paint, and someone mentione talcum powder has been linked to cancer and has become harder to get. Who would have known? Is anything safe these days?

For the specific tar paper recipes, check out the full thread.

View the full thread on the *MRH* website

Recent "Show me a model of ..." photo thread

These images were posted on a recent *MRH* forum "Show me a model of ..." regular photo thread. Some nice gondolas here!

View the recent "Show me ..." thread

3. MRH forum member gjslsffan (Tom Holley) posted this shot in answer to a request to see a fifty-foot railcar. That's one very realistically beat up and weathered gondola there, Tom. Nice job!

4. Forum member IronBeltKen (Ken L.) posted this eye-catching photo of a Rock Islan scrap gon in response to the request "Let's see a model having a roadname beginning with the letter R." Another fabulous gondola model and a great layout scene.

Model Railroad Hobbyist | June 2025

Getting started with realistic ops: Coordinating the trains

Once you have the trains determined and you invite the guys over for a serious op session, how do you coordinate the movement of the trains? Or does everyone just start out all at once and you hope nobody collides?

Obviously, the real railroads can't do that or they will have quite a mess on their hands with destroyed equipment, damaged freight, and worst of all, several possible crew and passenger fatalities.

While you can get away with what is often called "mother may I" verbal ad hoc model train coordination during a layout op session, it feels more like you're directing a kid's ball game than running a railroad.

The real railroads use a dispatcher to play "traffic cop" for the movement of the trains. The dispatcher not only tells the trains when they can leave, they also manage how the trains move over the road with meets. The real railroads call these instructions train orders and they have special forms for issuing them.

Prior to the common availability of portable radios, the railroads used phone lines to communicate their train orders. The general method is the dispatcher gives a train directional authority to a section of track – on other words, you can move from A to B in one direction only. The rear of your train must not back up without permission. The locos on the front may go forwards or backwards within their authorized sec-

1. John Depauw (his EJ&E is the cover story layout this month) had these signs placed around the railroad on the fascia. While the reminder is expressed in a humorous fashion, the message is quite serious if you want an op session to go smoothly.

tion of track as long as the rear of the train *never backs up.*

If you're a local that will need to switch industry spurs, obviously you will need the ability to go both backwards and forwards. That's a special kind of train order called a "work between" to give everyone a heads up the rear of your train may move in reverse, so beware!

It's also important you keep the dispatcher informed of your location as you move through your assigned trackage. On a model railroad, it's common to have a phone on the fascia or to be using radios and for you to report your progress to the dispatcher as you pass a station.

If you're switching a town, you also need to keep the dispatcher apprised of your progress so they will know if you can get in the clear to let a mainline train pass.

I like John Depauw's clever sign he has on his layout [1]. It nicely summarizes a train operator's need to keep the dispatcher informed of your whereabouts! ☑

WHAT'S NEAT column

Model Railroad Hobbyist | June 2025

KEN PATTERSON COVERS THIS MONTH:

- NEW N SCALE LOCOMOTIVES FROM BLI
- WEATHERING A BACHMANN STEAM LOCOMOTIVE
- LAYOUT CONSTRUCTION PART 3 – RENOVATION IN HO SCALE

VIEW READER COMMENTS

click to play video

PHOTOS AND VIDEO OF SUPERB MODELS

FOR THE JUNE "WHAT'S NEAT," Ken starts by showing some new N scale NW-2 and SW-7 locomotives he's received from BLI. Next he demonstrates how he weathers a Bachmann steam locomotive. Staying in the basement this month, Ken measures, cuts, stains, and positions the plywood that will form the sub-roadbed of the new curve in the back of the basement and over the washer and dryer.

New N scale locomotives from BLI

1. A & B – Ken just received four new SW7 and NW2 locomotives from BLI in N scale. He's going to pull an N scale layout out of storage so he can see them run.

VIEW READER COMMENTS

Weathering a Bachmann steam locomotive

2. Bachmann requested that for the June "What's Neat" Ken weather one of their steam locomotives. Here is the HO scale Baltimore & Ohio 4-6-2 Pacific that Ken will be weathering, straight out of the box.

3. After researching photos of prototype locomotives to get the correct colors for his weathering, Ken starts with burnt umbra oil paint heavily thinned with turpenoid, brushing it onto the locomotive and tender to give it an overall dirty look.

4. The base weathering complete, the model goes on a lazy susan Ken has constructed for painting. When he airbrushes a very thin dust color on the locomotive's running gear and lower sections, he wants the wheels turning so he doesn't get any unpainted "shadows" from the drive rods and valve gear. A DC power pack attached to the rails with clips does the trick. Then he spins the locomotive around to do the other side as well.

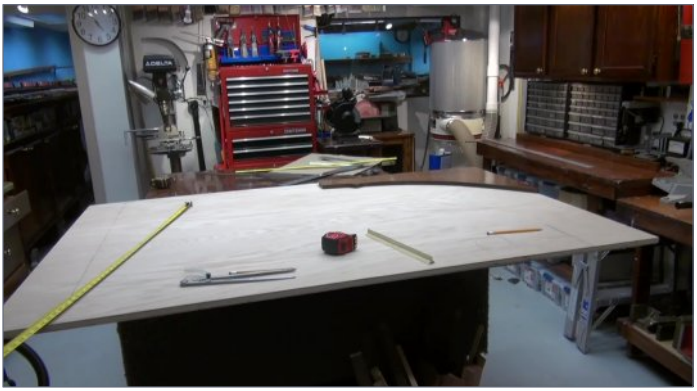
5. After adding high-gloss black paint to the valve gear to represent a greasy appearance, the freshly weathered locomotive is ready to put back on the layout.

Layout Construction Part 3 – Renovation in HO scale

6. Getting a little twitchy after not being able to run trains in the basement for a couple of months, Ken continues working on rebuilding the back corner of his layout. Here we see the plywood that he'll be gluing to the aluminum stud that runs 11 feet over a sink, cabinets, and the washer and dryer.

7. Using Gorilla Glue, he glues the boards to the aluminum stud and then adds weights on a pair of long levels to prevent the glue from expanding and moving the boards out of place.

8. While waiting for the glue to dry, Ken takes us back to the main portion of the new module, showing how he'll set up a string of turnouts to go from his single-track mainline at the other end to the three tracks that will curve around the corner and go across the section he just glued.



9. With a 4x8 sheet of ¾″ plywood costing nearly $100, there isn't any room for mistakes in cutting. Ken used a tape measure mounted on a photo tripod as a traverse to measure and mark the curves he'll need for the corner section and the old transition section as a pattern for its replacement. There are a couple of other pieces he needs to cut from the sheet, but the important thing is they will all come out of the single sheet of plywood.

10. With the cuts done, it's time for Ken to start fitting the pieces together so he can make any adjustments that are needed before staining all the wood.

11. Here the plywood is just a little bit too long, which is preferable to being too short – trimming and sanding is much easier than trying to shim-in an extra little bit of plywood. This photo also shows where Ken used coved trim alongside the aluminum stud to help prevent the edges of the 11-foot section from warping.

12. Before staining the wood, Ken adds strips of cabinet veneer to the front and rear edges of the curved section as fences to prevent trains from taking high dives to the floor below.

13. Ken attaches the fence to the front of the curve section using half-inch crown staples. He'll fill in the holes with wood putty prior to staining.

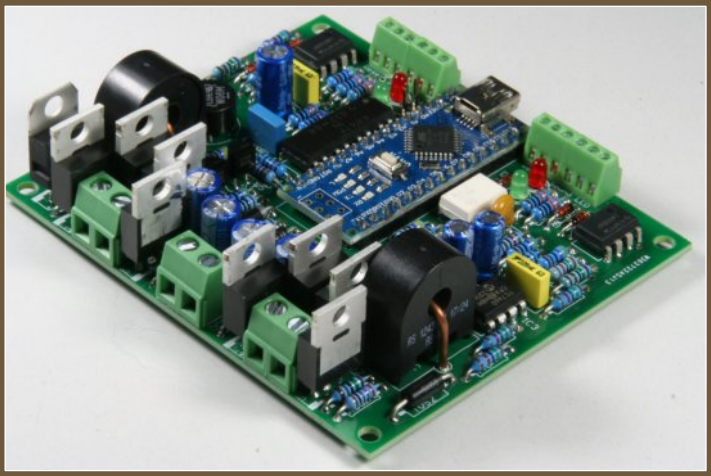
14. With most of the fences installed, Ken stained the wood with his favorite Red Oak stain and sealed it with three coats of Minwax high-gloss polyurethane varnish.

15. Since Ken stains both sides of the plywood at the same time, he supports the boards on screws mounted in pieces of scrap. The small screw heads do not leave any marks on the boards and the elevation allows air to flow under the boards to dry the stain and cure the polyurethane on the bottom.

16. With everything stained, it was time for a final test-fit before fastening it down. The next episode will include finishing the base of the main module, to include wrapping it in plywood and leveling the foam.

To see the BLI N scale switchers, all the steps Ken uses in weathering the steam locomotive, including why he uses turpenoid instead of turpentine, and the full video on cutting, finishing, and placing the new layout support structure, click on the video link at the beginning of this article. ☑

A Fully-Configurable DCC Dual Power Breaker
Part 1



Electrical Impulses

1. Assembled dual power breaker.

VIEW READER COMMENTS

Model Railroad Hobbyist | June 2025

Dr. Terry Chamberlain shares a DIY DCC Power Breaker ...

There was discussion in the MRH Forum some time ago about DCC power breakers to protect the DCC command station and boosters from track short-circuits or other overloads. Everyone agreed they were good to have.

However, I was taken aback at the high cost of the devices, particularly for layouts divided into several power districts. I could find almost no information on DIY versions or how these devices were put together.

Mike Bolton of MERG (Model Electronics Railway Group Ltd.) (www.merg.org/uk/resources/dcc) published a couple of basic designs around 20 years ago, but only built as prototypes, not finished designs. Aside from adjusting component values, the designs were not easily configurable.

They had a few other drawbacks, such as not having the control circuitry isolated from the higher-voltage DCC sections. This would be an essential feature if the power breaker is to be installed as a reliable means of protecting your DCC system.

As a professional electronics engineer, I decided to develop my own design from Mike Bolton's ideas. The result is a dual-channel power breaker that can be built for between $40 and $45, including the printed-circuit board [1].

The dual power breaker (DPB) design presented here meets all the necessary criteria, including the switching required to cut power to both rails – not just to a single rail. The higher-voltage components that control the DCC outputs to the track are optically isolated from the low-voltage control circuitry, and all aspects of the operation of each of the two channels are independently configurable using the included Arduino microcontroller.

I designed the DPB to use readily available components only. If you are comfortable using a fine-tip soldering iron and assembling electronic components to a PCB, you can easily build the DPB.

The PCB layout is available as a set of Gerber files so it can be procured from several suppliers. The only particular PCB requirement is that it needs to be built using 2-ounce copper (70 micron), rather than the standard 1-ounce (35 micron) copper, to handle DCC currents up to 5 amps.

The fitted Arduino Nano microcontroller controls the DPB operational parameters. You can set the parameters independently for each of the two channels. These include setting the current limit for each channel (power district), the delay time before power is

cut off after the district current exceeds the set limit, and the subsequent delay time before the DPB tries to reconnect power to that district.

After power is cut to a power district the DPB will attempt to reapply power automatically after the set delay. If an overload is still present, the DPB will cut off power again, and will continue to cycle through this sequence until you remove the cause of the track overload, or you cut off power to the DCC command station or booster.

You can disable the auto-reconnect feature if you wish, and connect a manual pushbutton to either or both channels of the DPB to reapply power to the layout. The pushbutton can also be used to override a long reconnect delay and switch track power on again.

Additionally, you can connect an external LED and alarm sounder to each channel to notify you when and where a power break occurs, since you will not necessarily mount the DPB where it will be visible during layout operation.

As well as acting as a straightforward power breaker, you can also configure the DPB as an automatic reverse-loop controller. Auto-reverser mode uses both channels to control the DCC phase applied to the reversing loop or wye, while still providing fully programmable over-current protection for the district represented by the loop or wye.

Specifications

Maximum DCC Current through DPB (total, both districts) – 5 amps (the PCB will handle up to 8 amps, but will get warm)

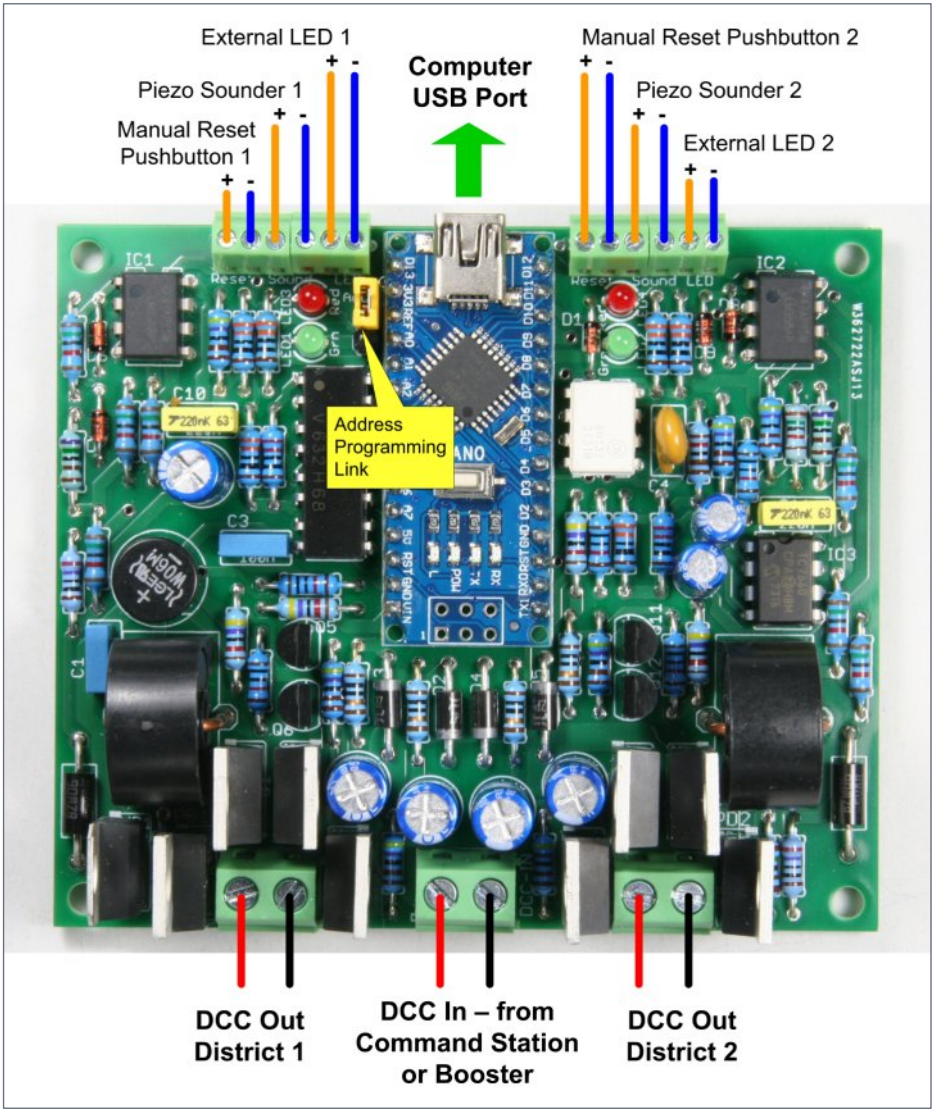
District Trip Current – settable in 0.25-amp steps from 0.25A to 5A

District Overload Delay Time – settable in 1-millisecond steps from 5ms to 255ms

District Reconnect Delay Time – settable in 0.25-second steps from 0.25s to 60s

CONNECTIONS

Connections to the DPB are quite simple, as shown in [2].

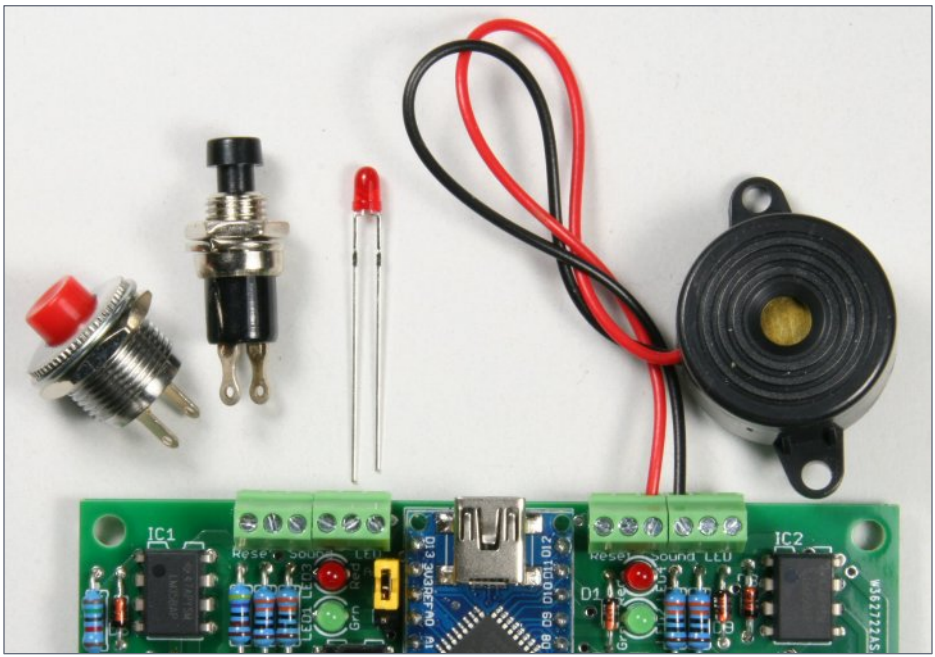


2. Dual Power Breaker connections.

The DCC track output from your command station or booster is taken to the central 2-position terminal block, and you connect one of your layout's power districts to either of the other two 2-position terminal blocks. The Arduino Nano has a standard USB (Micro-B) connector to link it to your computer.

The DPB provides auxiliary connections for each district to an external LED, alarm sounder, and manual reset pushbutton via a 6-position header or terminal block, should you have a need for these optional features [3].

The blue (-) connections in [2] are all linked to the DPB control circuitry ground (0 volt). You do not need to make any connection from these ground connections to the ground connection (if any) of your command station or booster. The DCC connections are completely isolated from the DPB ground.



3. Reset pushbuttons, external LED, and piezo sounder are all optional features that the DPB is pre-wired to support.

The reset pushbuttons should be momentary, push-to-make types. The piezo sounders must not exceed 20mA – this rules out most electromagnetic types (see shopping list).

Series resistors for both external LEDs are already fitted on the DPB and provide a current of around 10mA to each LED. The drive provided means the external LEDs should be either red, orange, yellow or green (not white or blue), and fitted as shown in [3] with the shorter lead to the terminal block ground (shown blue in [2]).

SETUP AND CONTROL

Although you will need to use your computer to load the operational software code (sketch) to the Arduino Nano, once this is done a connection to the computer is not essential. The DPB is DCC-compatible, and you can set all parameters using any standard handheld controller.

Your first step is to set a DCC address for the DPB. Connect the DPB to the DCC command station or booster track output, then fit a jumper across the 2pin header indicated on the PCB in [2] (where the jumper is shown in the inactive or 'parked' position on one of the link pins).

With the jumper fitted, select an accessory address on your handheld controller, and send a turnout command (Normal or Route, straight or diverging). The DPB will then set itself to the selected accessory address (in the standard range 1 – 2043).

DPB parameters are held in a set of configuration variables (CV41 through CV56). Once you have programmed the DPB address, you can set the value of each CV by issuing a program-on-the-main (POM) command from your handheld controller using the set accessory address this time as a locomotive address.

However, you cannot connect the DPB to your programming track as designed, so there is no convenient way to verify the CV values have been set as required via DCC.

The Arduino sketch, therefore, includes a facility to let you read and write all CV values using the Arduino Nano USB connection to your computer in conjunction with the Arduino IDE Serial Monitor and a set of simple commands.

These commands and their use in setting up the DPB will be described in detail in Part 2 of this article.

Interested in building your own DPB?

Full construction details for building a Dual Power Breaker will be covered in Part 2. The first step is to purchase a printed circuit board. This is a double-sided, through-hole-plated PCB, size 87mm x 74mm (3.4″ x 2.9″) [4].

For most of my previous projects I have used OSH Park, a small company located in Lake Oswego, Oregon. Unfortunately, they only have the capacity to offer heavyweight 2oz (70 micron) copper on thin (0.8mm) boards, rather than on the standard, more rigid, 1.6mm thick boards needed to support the heavier components used on the DPB.

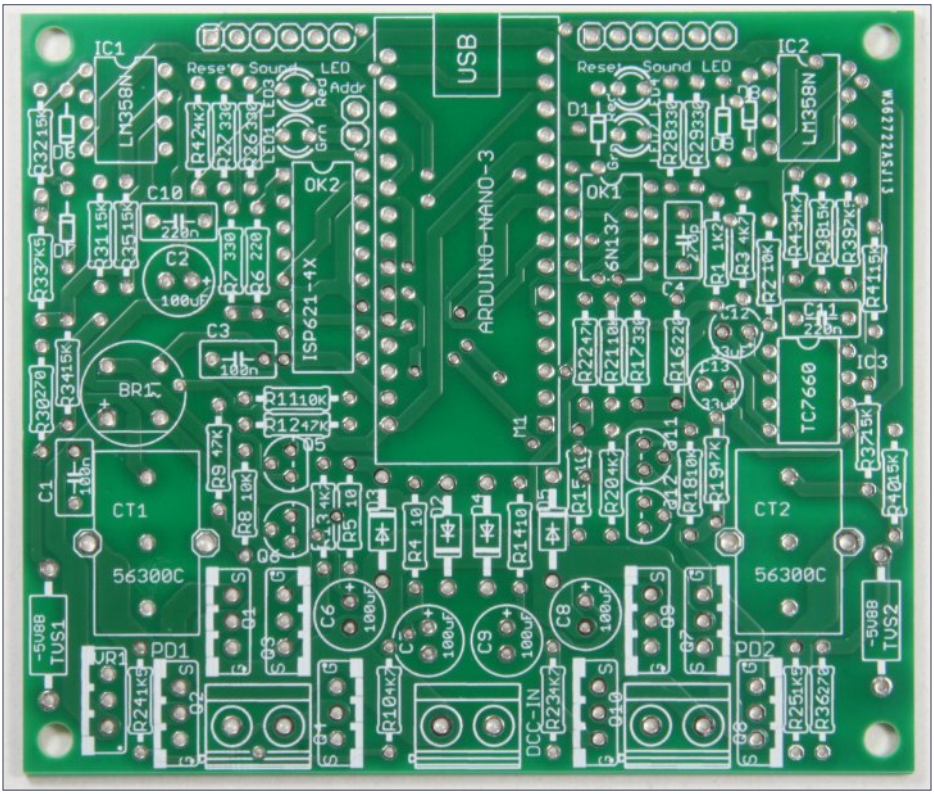
This time, I used my alternative supplier, PCBWay, which, like OSH Park, allows me to share the uploaded PCB design. PCBWay supplies boards in multiples of five, so if you don't intend to build that many DPB units, you might consider finding other model railroaders to split an order.

To order a set of boards, follow this link: (www.pcbway.com/project/shareproject/W362722ASJ13_DualPowerBreaker_3C_109e00d0.html). On the PCBWay website, click the button labelled "Add to cart."

Alternatively, if you would like to use your own preferred PCB supplier, you can download the full set of Gerber files by clicking on the "Download Gerber file" link. This gets you a .zip file which you can pass on directly to your supplier, but remember to specify also that the PCB must be manufactured with 2oz (70 micron) copper rather than the normal 1oz (35 micron) copper to handle the high currents involved.

Returning to the PCBWay order webpage, after clicking the "Add to cart" button, you will need to log in or register for an account with your e-mail address and a password of your choice. Once logged in you will have to click "Add to cart" again to open the submission form where you can, if you wish, increase the number of boards to order by clicking in the Quantity textbox and selecting the required number (in multiples of five).

Although the initial set of five boards will cost you $36.10, each additional set of five will only add about $5 to the total, which substantially reduces the cost per board. On the form you can also change the color of the solder mask or silkscreen printing to suit your preferences, but some choices will substantially increase the



4. Bare printed-circuit board.

cost. I suggest leaving the other options just as they are.

Once you are happy with the order, click the "Submit" button. There will be a short delay while PCBWay checks the board parameters for manufacture. Once this is done, you can click the "Proceed to checkout" button. Check that your name and address are correct and select a payment method. You can pay either with a credit card or via PayPal, but PCBWay adds a fee to cover bank charges depending on the chosen payment option.

PCBWay will also automatically select the fastest and most expensive shipping option (usually DHL or FedEx). I generally opt for the much cheaper Global Standard Shipping which has always proved reliable, with delivery taking about a week to the UK.

Using PayPal and this shipping option, the total cost for five boards (at the time of writing this article) came to $45.15 ($9.03 per board) or $48.00 for 10 boards ($4.80 per board).

When you are happy with the details, click the "Place order" button and wait for your PCBs to arrive. PCBWay lets you track your order's progress on their website through all the manufacturing stages, and sends you a tracking link when production is complete.

Neither A-Train Systems nor I have any connection with PCBWay other than as a very satisfied customer of their services.

Ordering components

The parts required to build a complete Dual Power Breaker, together with sources of supply, are listed in the two tables, [5] and [6].

Suggested suppliers for the parts listed above are RS Components (uk.rs-online.com/web) or Farnell (uk.farnell.com) for users in the UK, or Mouser (www.mouser.com) or Digikey (www.digikey.com) for users in the USA. The Arduino Nano-3 module can best be obtained from eBay or AliExpress.

Table 2 [6] on the previous page gives suggested part numbers for each DPB component from each of the listed suppliers.

Part	Reference	Quantity	Value	Notes
Resistor – Metal Film, 0.25 Watt	R4, R5, R14, R15	4	10R	All resistors 10mm pitch on PCB
" "	R6, R16	2	220R	
" "	R30, R36	2	270R	Must be 1% tolerance
" "	R7, R17, R26–R29	6	330R	
" "	R1	1	1K2	
" "	R24, R25	2	1K5	
" "	R3, R10, R13, R20, R23, R42, R43	7	4K7	
" "	R33, R39	2	7K5	Must be 1% tolerance
" "	R2, R8, R11, R18, R21	5	10K	
" "	R31, R32, R34, R35, R37, R38, R40, R41	8	15K	Must be 1% tolerance
" "	R9, R12, R19, R22	4	47K	
Capacitor – Polyester Film	C1, C3	2	100nF 63V	5mm pitch
" "	C10, C11	2	220nF 63V	5mm pitch
Capacitor – Electrolytic	C12, C13	2	33uF 35V	2mm pitch, 5mm diameter
" "	C2, C6–C9	5	100uF 35V	2.5mm pitch, 6.3mm diameter
Capacitor – Disc Ceramic	C4	1	270pF	5mm pitch
Diode Bridge Rectifier	BR1	1	W01G – W06G	Any voltage rating > 50V acceptable
Diode	D1, D6–D9	5	1N4148	
Diode	D2-D5	4	UF4002	
Transistor PNP	Q5, Q6, Q11, Q12	4	2N3906	
Power MOSFET N-Channel	Q1-Q4, Q7-Q10	8	IRFZ44N or IRFZ44Z	
Transient Voltage Suppressor - Bidirectional	TVS1, TVS2	2	BZW06-5V8B, BZW04-5V8B, or P6KE6.8CA	Must be bidirectional (B or CA suffix)
Voltage Regulator - 9 Volt	VR1	1	L7809CV or LM7809	
Voltage Converter	IC3	1	TC7660	
Dual Operational Amplifier	IC1, IC2	2	LM358N, LM358AN, LM358P, or LM358AP	
Optocoupler	OK1	1	6N137	
Quad Optocoupler	OK2	1	ISP621-4X, LTV-847, ACPL-847, or K847PH	
Arduino Module	M1	1	Nano-3	
Current Transformer 300:1	CT1, CT2	2	Murata 56300C or Talema AS103	
Light-Emitting Diode	LED1, LED2	2	3mm Green	
Light-Emitting Diode	LED3, LED4	2	3mm Red	
Terminal Block – 2-position	DCC In, PD1 Out, PD2 Out	3		5.08mm (0.2") pitch
Pin Header	JP1, JP2	1	1 x 6	2.54mm (0.1") pitch
"	JP3	0	1 x 2	2.54mm (0.1") pitch
Jumper Link Open - 0.1" pitch	-	1		
Terminal Block – 3- or 6-position 2.54mm (0.1") pitch	-	4 or 2		Optional – in place of Pin Headers JP1, JP2

5. Table 1 – Dual Power Breaker – List of components.

Reference	RS Cmps	Farnell	Mouser	Digikey
R4, R5, R14, R15	1997587	3496945	603-MFR25SFTE52-10R	13-MFR-25FTE52-10RCT-ND
R6, R16	1997610	3496953	603-MFR25SFTF52-220R	13-MFR25SFTF52-220RCT-ND
R30, R36	1997917	3496955	603-MFR25SFTF52-270R	13-MFR-25FTE52-270RCT-ND
R7, R17, R26–R29	1997662	3496925	603-MFR25SFTE52-330R	13-MFR-25FTE52-330RCT-ND
R1	1997604	4312074	603-MFR-25FBF52-1K2	13-MFR-25FRF52-1K2TR-ND
R24, R25	1997606	3496914	603-MFR-25FBF52-1K5	13-MFR-25FRF52-1K5TR-ND
R3, R10, R13, R20, R23, R42, R43	199762	3951808	603-MFR-25FBF52-4K7	13-MFR-25FRF52-4K7TR-ND
R33, R39	1997939	3952712	603-MFR-25FBF52-7K5	13-MFR-25FRF52-7K5TR-ND
R2, R8, R11, R18, R21	1997658	3951796	603-MFR-25FBF52-10K	13-MFR-25FRF52-10KTR-ND
R31, R32, R34, R35, R37, R38, R40, R41	1997597	3496907	603-MFR-25FBF52-15K	13-MFR-25FRF52-15KTR-ND
R9, R12, R19, R22	1997669	3496933	603-MFR-25FBF52-47K	13-MFR-25FRF52-47KTR-ND
C1, C3	2416523	2763238	80-R82DC3100DQ50J	495-75656-1-ND
C10, C11	2416543	4143525	80-R82DC3220SH60J	399-9705-1-ND
C12, C13	2286739	9693653	710-860010572004	732-8734-1-ND
C2, C6–C9	7270688	2917910	667-ECA-1VM101	399-6104-ND
C4	2621878	3651154	594-S271K43SL0N6TK5R	445-CC45SL3AD271JYVNACT-ND
BR1	7082668	3775028	625-2W04G-E4	4878-B250R-ND
D1, D6–D9	7390290	2675146	512-1N4148TA	1N4148FSTR-ND
D2-D5	6289732	2677309	637-UF4002	UF4002-E3/54GITR-ND
Q5, Q6, Q11, Q12	7390375	1574372	637-2N3906	2N3906FS-ND
Q1-Q4, Q7-Q10	5409777	8650225	942-IRFZ44NPBF	IRFZ44NPBF-ND
TVS1, TVS2	6997981	2889054	511-BZW04-5V8B	497-12758-1-ND
VR1	7140666	4472964	863-MC7809CTG	497-14786-5-ND
IC3	2070297	9762680	579-TC7660CPA	TC7660CPA-ND
IC1, IC2	7092100	3117069	595-LM358AP	296-9554-5-ND
OK1	8051267	2453244	859-6N137M	160-1791-ND
OK2	6935952	1339043	859-LTV-847	160-1370-5-ND
M1 - Arduino Nano	eBay	eBay	eBay	eBay
CT1, CT2	1243880	1454868	580-56300C	419-AS-103-ND
LED1, LED2	1808502	4538243	604-WP710A10GD	754-1217-ND
LED3, LED4	1780909	3648335	604-WP710A10ID	754-WP710A10SURDK-ND
DCC In, PD1 Out, PD2 Out	1468345	4179098	571-2828372	5239-ELK508V-02P-ND
JP1, JP2, JP3	2518632	1593422	517-929834-01-24-RK	3M9457-24-ND
Jumper Link (0.1")	2518682	3226076	855-M7583-46	S9337-ND
Terminal Blocks (3- or 6-position 0.1")	1731629	3817463	571-2828343 or 571-282834-6	277-1277-ND

6. Table 2 – Dual Power Breaker – Component supplier references.

Notes:

1. You may be able to find equivalent parts locally at a lower cost, using the details for each suggested part in the table above. Search the supplier's website using the part number to view the key parameters you are looking to match.

2. The total cost of parts for a single DPB (when this article was written) should be between $40 and $45 (£40 to £45 in the UK), including the PCB.

3. Buying electronics components singly or in small quantities is much more expensive than buying in bulk (quantities of 10 or more), so it is well worth considering at the outset how many DPB units you might build, possibly jointly with friends, and then procuring all the required components in a single purchase. This will also minimize shipping charges.

Dual Power Breaker technical details

You can download a technical description of the DPB circuitry, including a full schematic, from a special download section of my ATrain Systems website at www.a-train-systems.co.uk/dpb-download.

The folder includes a copy of the Gerber files for the printed-circuit board. If you are ordering a PCB from a supplier other than PCBWay, you must specify that the board be manufactured using 2oz (70 micron) copper to handle the high currents. This parameter is not included as part of the Gerber files data.

Software for the Dual Power Breaker

If you're unfamiliar with the Arduino hardware and software that form the basis for the control section of this project, read the article by Joe Fugate in the April 2024 issue of *MRH* "Using

Servos for Turnout Control – Part 1." (online.fliphtml5.com/buups/bvxr/index.html#p=57) has a section that provides a very good introduction.

There is also a lot of useful information on the Arduino website, but it can prove difficult to find exactly what you need. Have a look at (docs.arduino.cc/hardware/nano/#features) for details of the Nano module used here in the DPB, including links to tutorials such as (docs.arduino.cc/tutorials/nano/nano-getting-started).

Once you have the Arduino IDE installed and set up on your computer, and you have mastered the basics by working through some of the examples supplied, look at the latest version of the sketch for the DPB (DualPowerBreaker_3-8.ino) by downloading it from my ATrain Systems website (www.a-train-systems.co.uk/dpb-download) to any convenient folder on your computer, and then opening it in the Arduino IDE.

Assuming you have an Arduino Nano-3 module on hand, connect a Mini-B USB cable from your computer to the Nano USB socket. Next, set the correct board type for the sketch by opening the Tools menu and selecting "Board," followed by "Arduino AVR Boards" and finally "Arduino Nano," as shown in [7].

With the board type selected as Nano, the next step is to select the type of processor fitted to the module, followed by the COM port used by your USB connection to the Nano – again as shown in [7].

If you have difficulty finding the port, disconnect the USB cable and look at the list of available ports (if any) displayed when you click Port on the Tools menu. Now close the Tools menu, plug the USB cable back in, then look at the Port list again – there should now be one more port shown. Use that one.

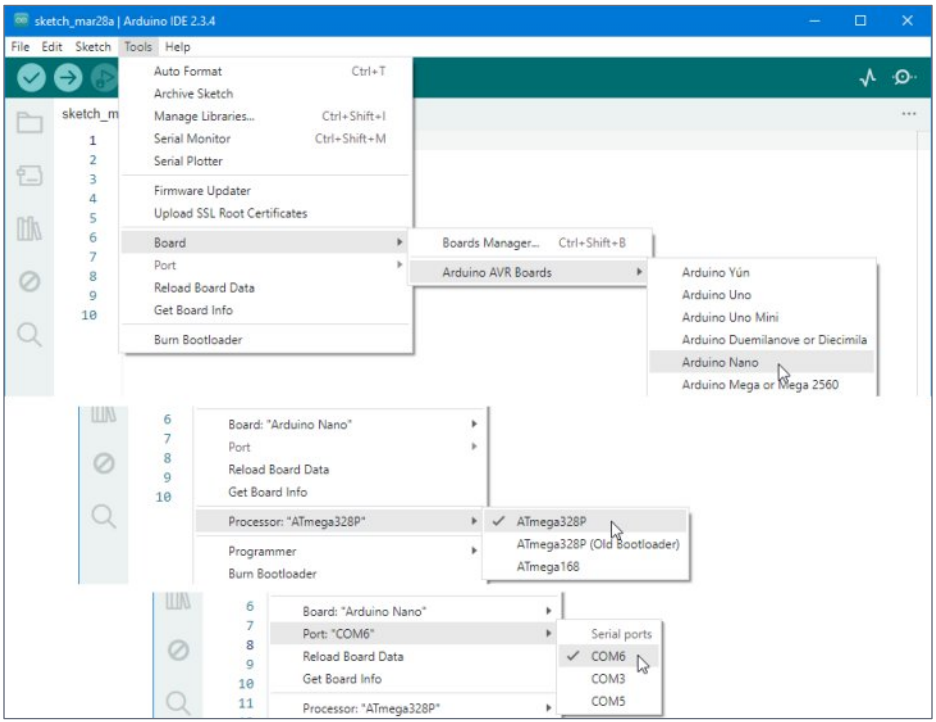
The next step is to load an additional library, "NmraDcc" to the IDE. Click on the Libraries icon on the left side of the IDE window, type "nmradcc" in the search box, and press the Return key. The correct library should appear at the top of the list [8].

Click the Install button and wait a few moments until installation is complete. Then click the Libraries icon again to close the Library Manager.

Now click the Upload (green circle arrow) button to transfer the compiled sketch to the module. You should see the Tx and Rx LEDs on the Nano blink as the transfer proceeds. Once the sketch has been uploaded, the Nano will retain it even when switched off.

If the transfer fails, it may be you have an older version of the Nano module. In this case, go back to the Tools menu and select the Processor as "ATmega328P (Old Bootloader)" and try the Upload operation again.

Should the transfer still fail, have a careful look at the markings on the Nano device (the large chip on the module). Several batches of



7. Select Arduino Nano, followed by Processor and Port.

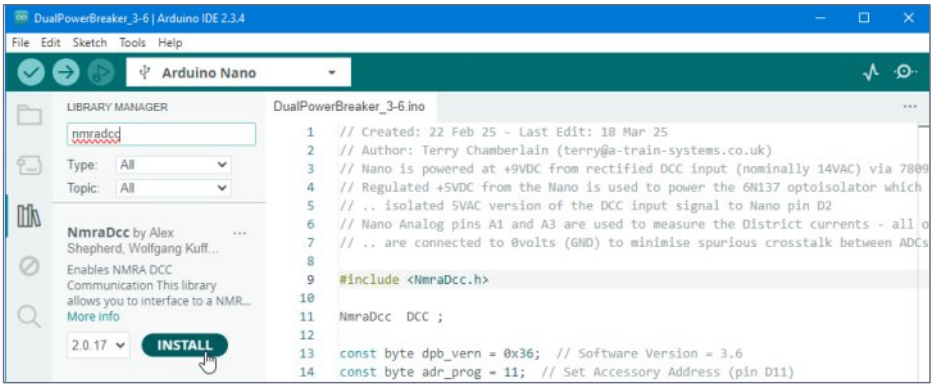
the Nano I received recently were fitted with an ATmega328PB processor that may not be recognized by the Arduino IDE as correct for a Nano module. While uploads with one batch worked using the "ATmega328P(Old Bootloader)," I needed to load an additional board type into the IDE for the others. If you have an ATmega328PB module, try the following enhancement to the Arduino IDE.

Open the File menu, and click on Preferences to display the Preferences window as shown in [9].

At the bottom of the window, copy and paste the following text into the box labeled "Additional boards manager URLs" without any spaces: "raw.githubusercontent.com/Qwerrty574/ATmega328PB-Arduino-Nano-Clone-with-Bootloader/master/package_m328pb_index.json"

Then click OK. Complete the addition of the new board type by clicking on the Boards icon on the left side of the IDE window, type "328PB" in the search box, and press the Return key, as shown in [10], where the correct board package should appear at the top of the list.

Click "Install" to complete the addition of the board package, then click the Boards icon again to close the Boards Manager.

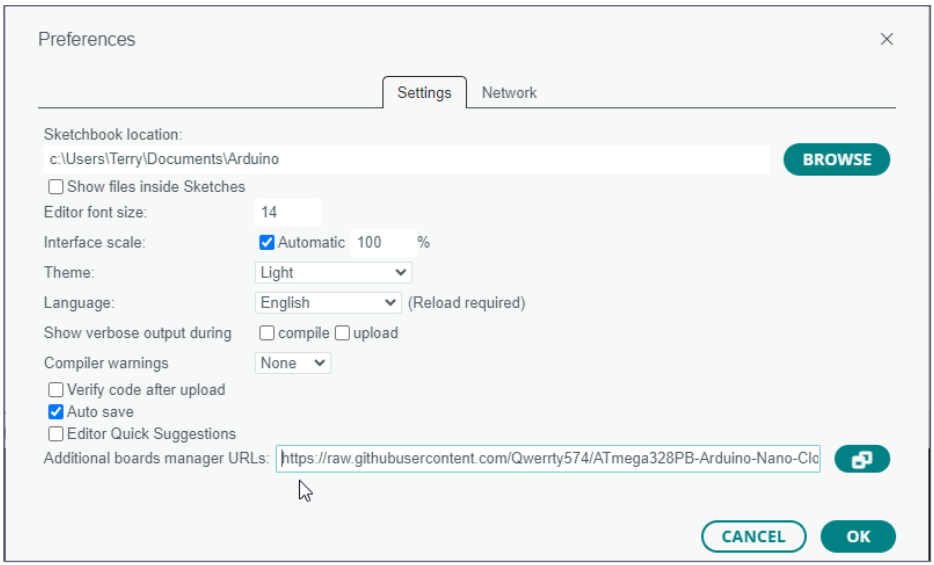


8. Using Library Manager to load the NmraDcc library.

Ensure that the Nano is still connected to a USB port on your computer, then return to the Tools menu. This time select the Board type as ATmega328PB as shown in [11]. Check that the correct port is still selected (just in case the allocation has changed – as in [11]), then try uploading the sketch once again.

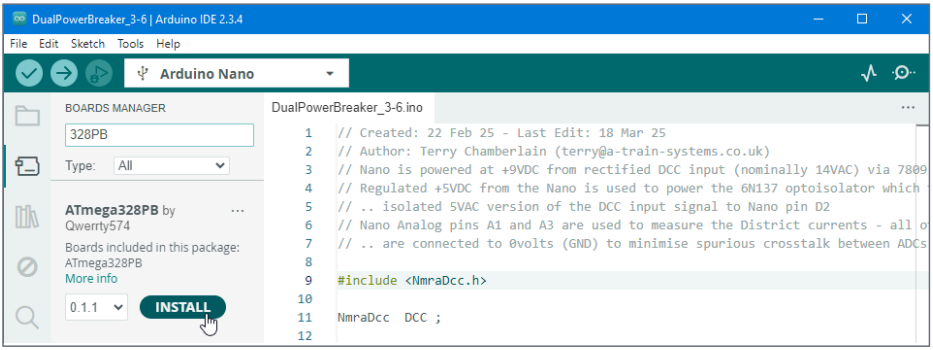
If you find that uploading the sketch still fails, it may be the bootloader software in your Nano has been corrupted and needs to be reloaded. Fixing such a problem is a bit outside the scope of this article, but have a look at this Arduino Support article: (support.arduino.cc/hc/en-us/articles/4841602539164-Burn-the-bootloader-on-UNO-Mega-and-classic-Nano-using-another-Arduino).

Also check documentation on one of the Arduino built-in examples at (docs.arduino.cc/built-in-examples/arduino-isp/ArduinoISP). This offers straightforward instructions on how to re-program the bootloader.

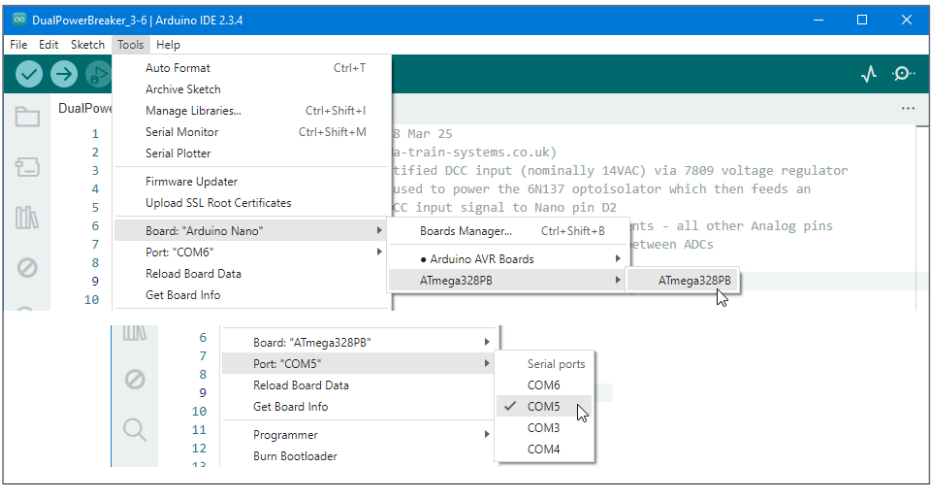


9. Adding a board type for the ATmega328PB processor.

Part 2 of this article will cover the details of building your own Dual Power Breaker, together with all aspects of the associated software used to set up and operate one or more Dual Power Breakers fitted to your own layout, including its use as an automatic reverser unit. ☑



10. Installing the ATmega328PB processor board type.



11. Select ATmega328PB, and check for correct Port.

Terry Chamberlain

Terry got into model railroading almost by accident in the 1990s when he responded to a request from some modelers in California to build a DCC system based around an Atari personal computer – and he had to build a simple layout to prove that it all worked. Eventually the project evolved into A-Track, a Windows application to provide full computer support for the complete range of NCE DCC systems, with facilities like JMRI's Decoder Pro and Panel Pro.

Terry is a professional electronics engineer, and spent most of his career in the UK defense industry designing and managing the development of large real-time computer systems for the Royal Navy. Now that he is fully retired, he is beginning to make progress building the small logging and mining layout he has been planning for many years, following several visits to Colorado, but keeps getting distracted by new computer and electronics projects for model railroading. ■

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INDEX

TABLE OF CONTENTS

Depauw's Joliet & Eastern

1. Two EJ&E SD's haul a train toward Waukegan on John Depauw's Elgin, Joilet & Eastern layout, also known as the "J" Line. The layout is a proto-freelanced version of this Chicago-area belt line.

Model Railroad Hobbyist | June 2025

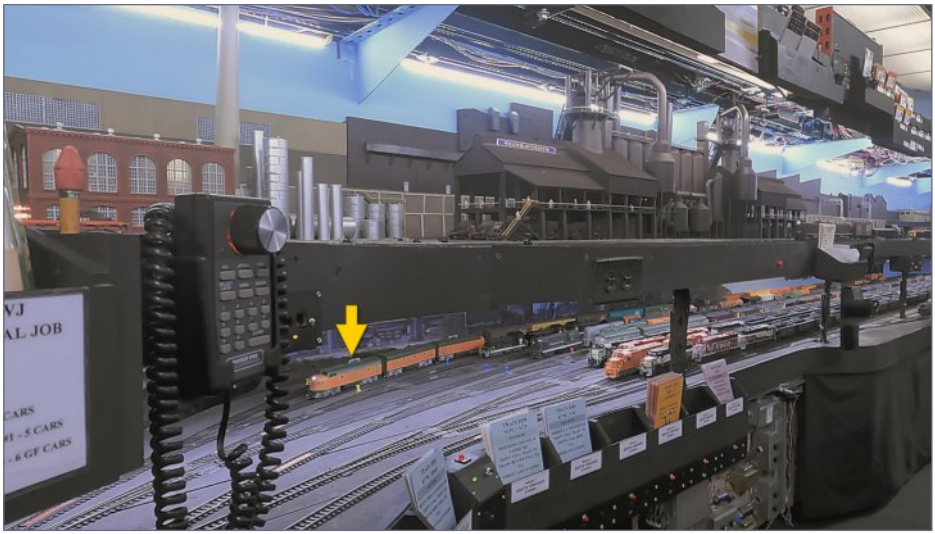
VIEW READER COMMENTS

JOHN DEPAUW HAS AN EXTENSIVE MULTI-DECKED HO SCALE LAYOUT in the greater Detroit area that will be open for tours during July as part of the 2025 National NMRA Convention. To learn more about this convention/to register, please visit this website: nmra2025.com

I visited John's layout, taking photos and video. John models a proto-freelanced version of the "J" or the Elgin, Joilet & Eastern, a beltline that circles Chicago. In this interview, John gives us a walking tour of the layout. We've marked each spot John covers in the track plans, so reference those and follow along.

Take it away, John!

1. John Depauw. Here, John points out details in Gary Indiana on the lower deck 1 [6]. Note: At the time of this recording, John was recovering from back surgery, so he temporarily used a walker when we visited.



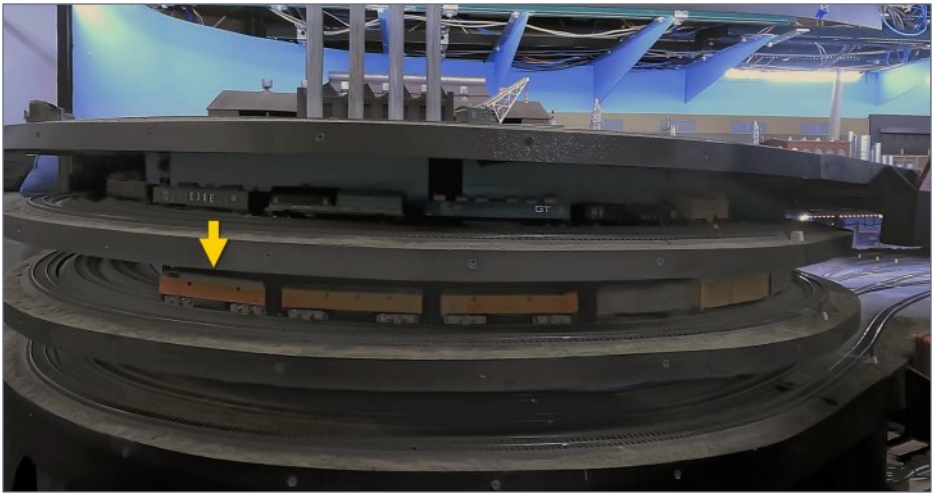
2. This view shows Level 0 South Chicago staging. In photos [2-4] we follow the train marked by the yellow arrow up the helix to Level 1.

Welcome to the EG&E Railway. The railroad runs a 30-mile radius loop around Chicago, and up to Waukegan, Illinois circa 1973. The "J" basically interchanges with every railroad that comes into Chicago.

To start with, when you're coming out of South Chicago staging [2], you make three complete loops around the helix [3], and come out at the back wall climbing upgrade behind the blast furnaces [4]. You come out on the mainline at (A) referenced on the level 1 track plan [6].

1. US Steel, Gary, Indiana

The area where we're looking at right now on the lower deck is the Gary Works US Steel [1]. We have two blast furnaces modeled here. We also have an open hearth, a roughing mill, and an ingot stripper.

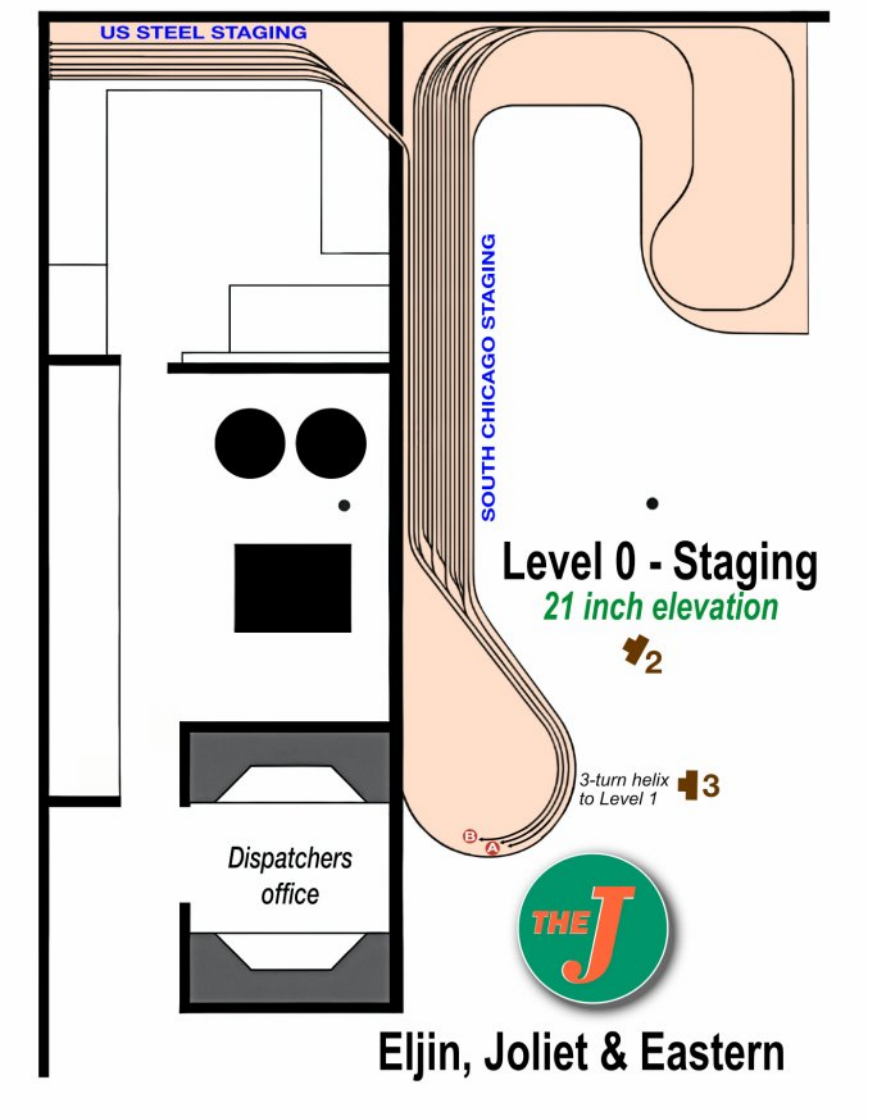


3. The train in Level 0 South Chicago staging [2] climbs the 3-tier helix up to Level 1.

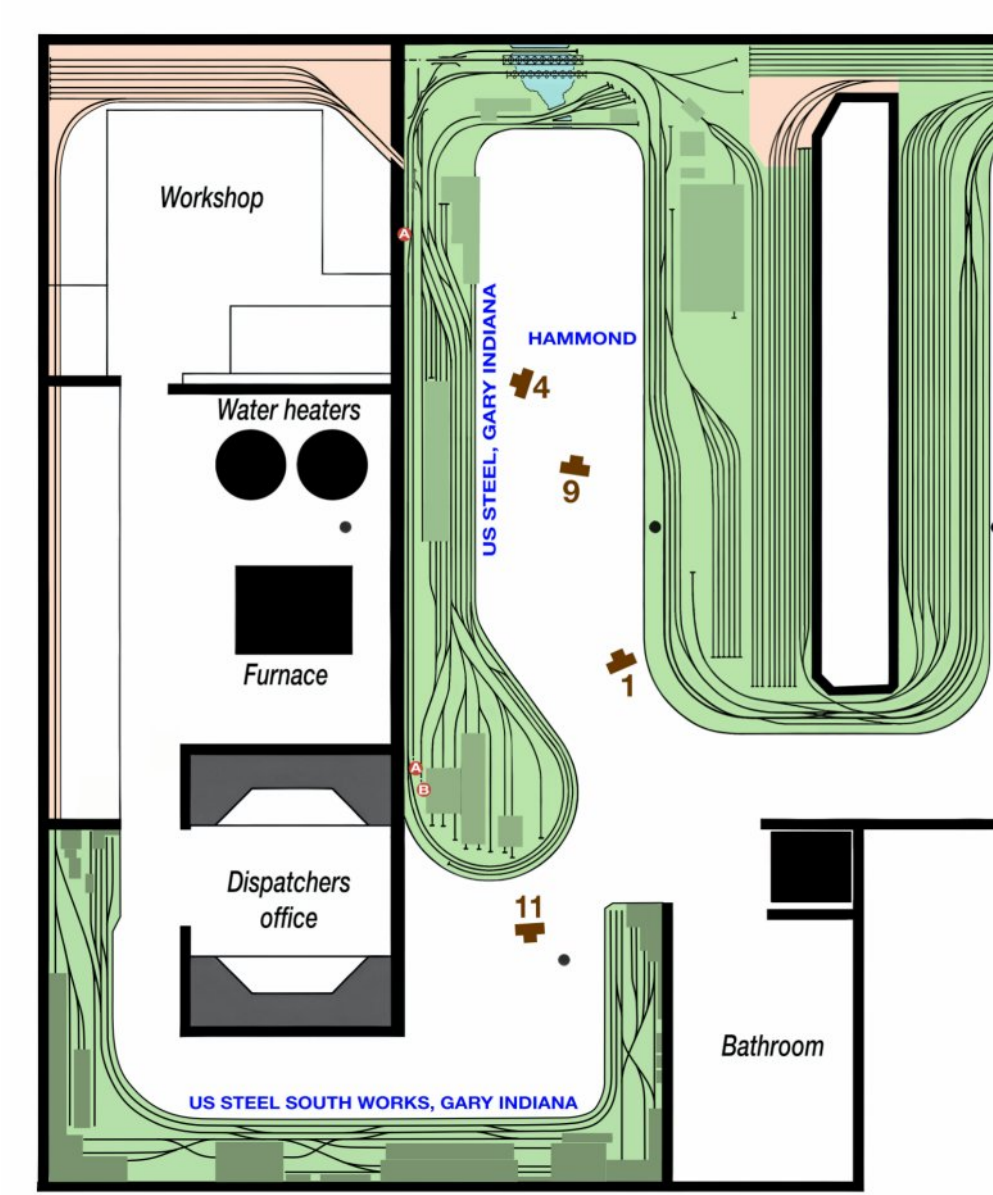
4. The train in [2, 3] now rolls along the backdrop on Level 1. In the foreground is the Gary, Indiana US Steel plant rail yard.

During the process, the slag comes out of the blast furnace and gets taken to a dump over by Gary Yard in the next aisle over. The hot metal comes out, goes to the open hearth, and gets turned into slabs.

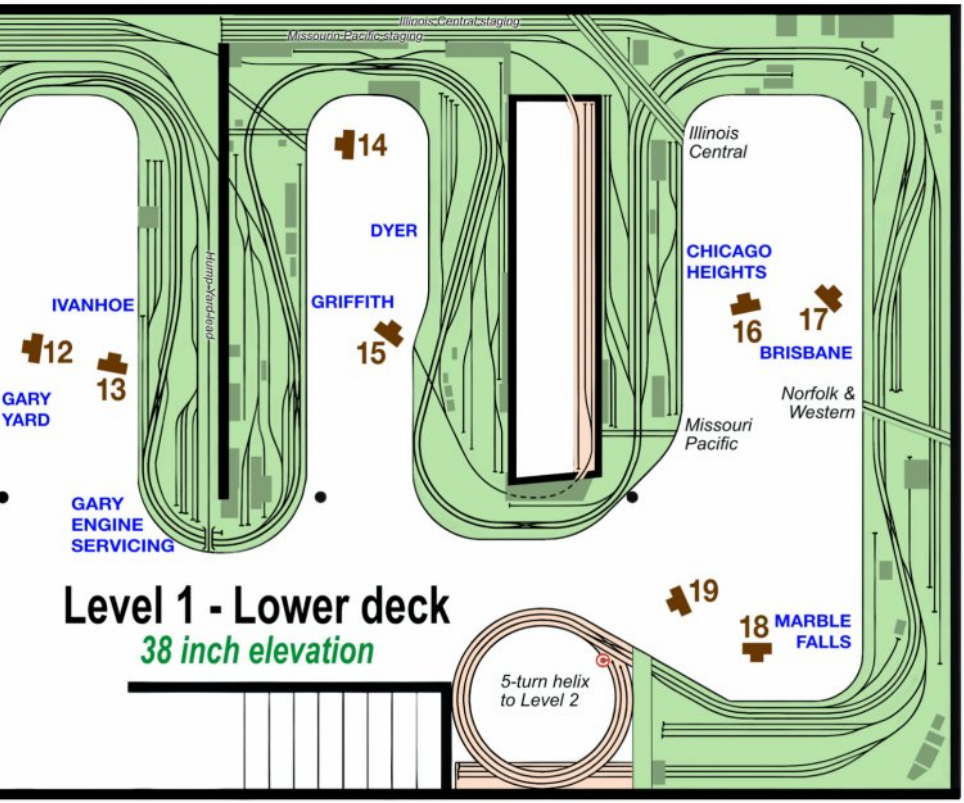
Text continues on page 11 →



5. This is the Level 0 staging track plan which is at 21 inches from the floor. Note (A) and (B) linking to the Level 1 track plan. Also note the photo locations marked for [2] and [3].



6. This is the Level 1 track plan for the lower deck which is at 38 inches from the floor. Track enters this level from Level 0 at (A) and (B) and then climbs up to Level 2 at (C).

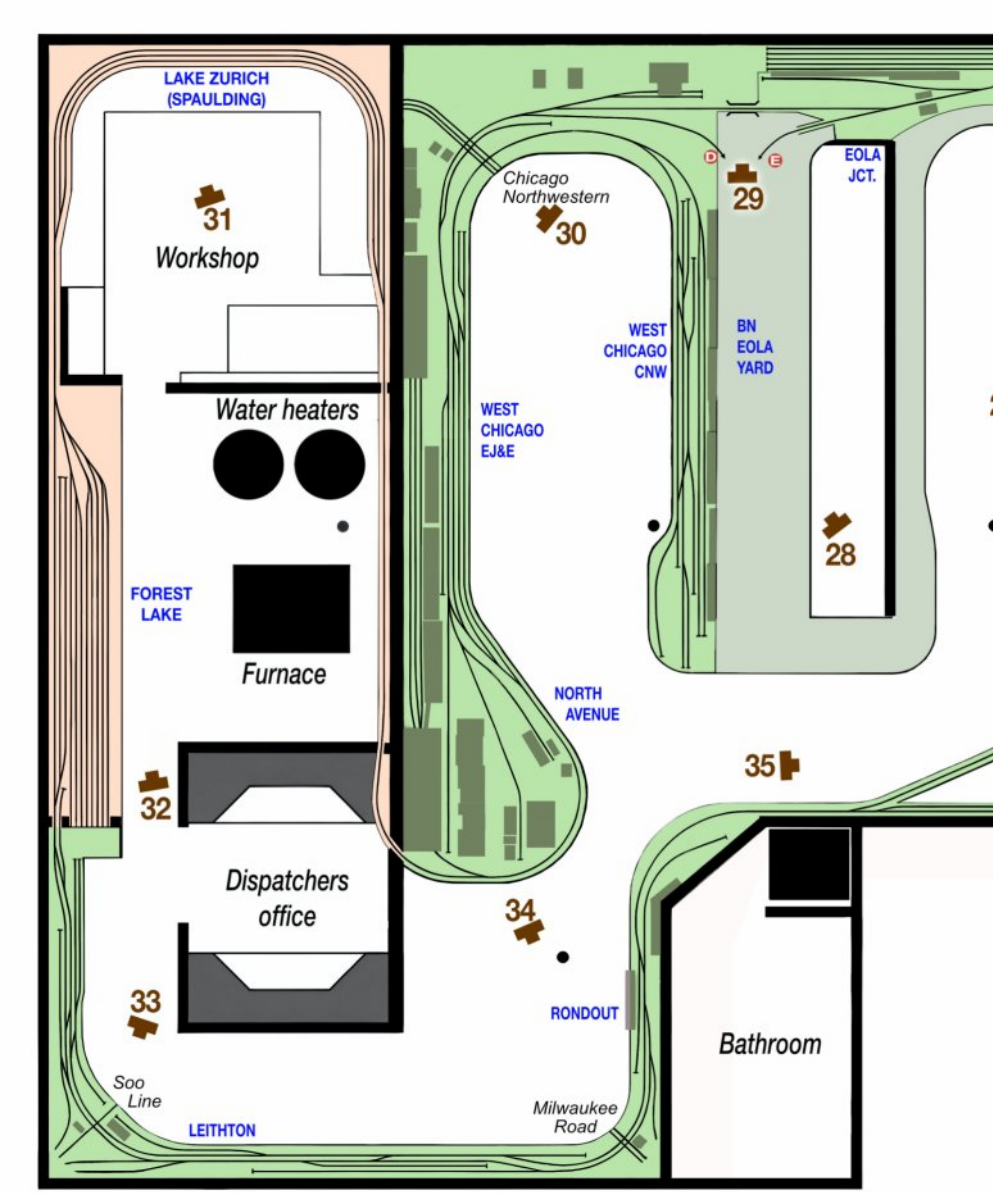


Note the photo locations marked with the camera icon and the photo number in brown. Zoom in to study the details more closely, or download the full resolution plan from the bonus downloads this month.

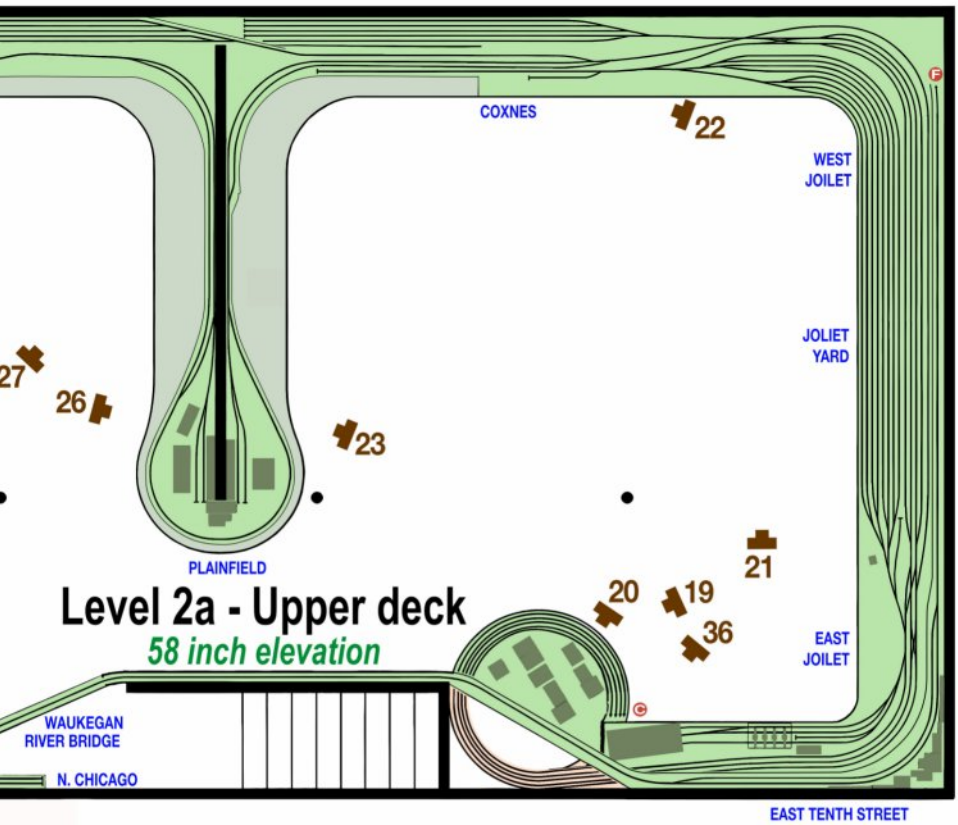
THE J

Eljin, Joliet & Eastern

VIEW READER COMMENTS



7. This is the upper deck Level 2a track plan which is at 58 inches from the floor. A 56-inch sub-level 2b track plan for the Burlington Northern underlays this plan as shown in [8].



Note the photo locations marked with the camera icon and the photo number in brown. Zoom in to study the details more closely, or download the full resolution plan from the bonus downloads this month.

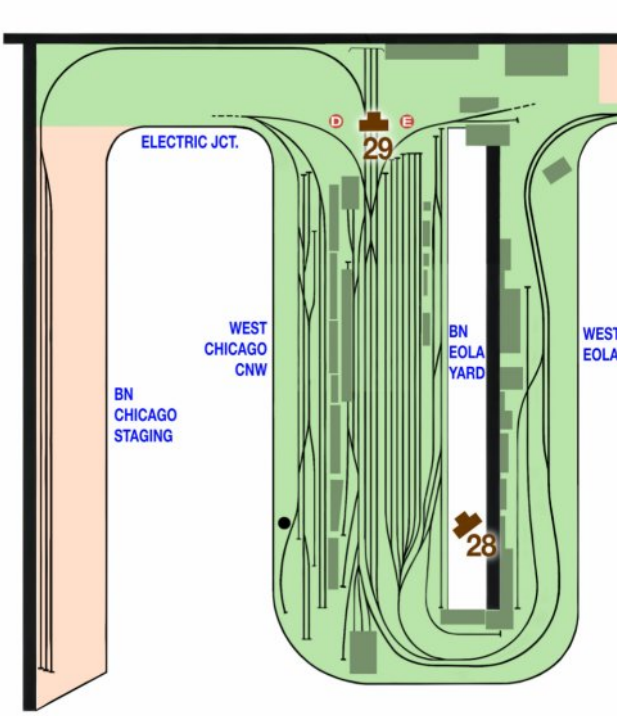
Eljin, Joliet & Eastern

VIEW READER COMMENTS

The slabs go to East Aurora for processing in a rolling mill, or to a roughing mill here in Gary.

We usually have at least one operator here, and sometimes two, classifying trains. We've got a lot of interchange traffic that comes in here: steel mill traffic, general freight, and so on.

We also have staging tracks behind the mill with cars that go to various plants in the Gary Works facility.

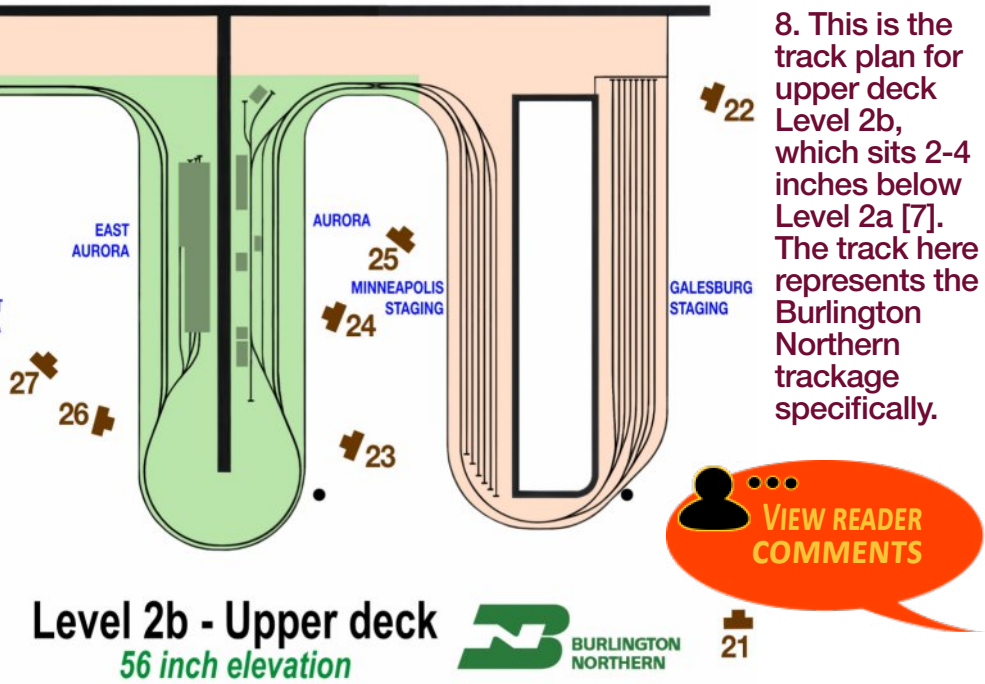


Along the back wall runs a track that goes underneath the bridge, and heads down towards South Chicago staging. There's probably three or four trains that go down there during an operating session.

2. Hammond, Indiana

Next comes Hammond, Indiana [9]. This is a fairly large town on the "J." The Hammond Commonwealth hosts a large Commonwealth Edison state line generating plant here.

Six coal trains come in here during an operating session, bringing in their loads, as well as picking up their empties and taking them back for more loads.



8. This is the track plan for upper deck Level 2b, which sits 2-4 inches below Level 2a [7]. The track here represents the Burlington Northern trackage specifically.

We pull the loads out of the holding yard, then put them through the rotary dumper, dumping them for processing in the power plant inside. That happens six times over a period of about four operating sessions.

Then there's two general freights that come in here and switch some of the local industries. We've got a team track, the powerhouse, and a couple other buildings on the backside that gets switched.

3. South Works US Steel, Gary, Indiana

From the US Steel Staging, a track runs down to South Works US Steel, in Gary, Indiana [11]. There is a lot of switching that goes on here. It's pretty much all local work.

9. This is Hammond, Indiana, the location of a major coal-fired electrical plant. Coal arrives at the rotary coal dumper in the distance, gets dumped, and carried by conveyor belt into the plant.

During an evening op session, we have three or four trains that come down to work.

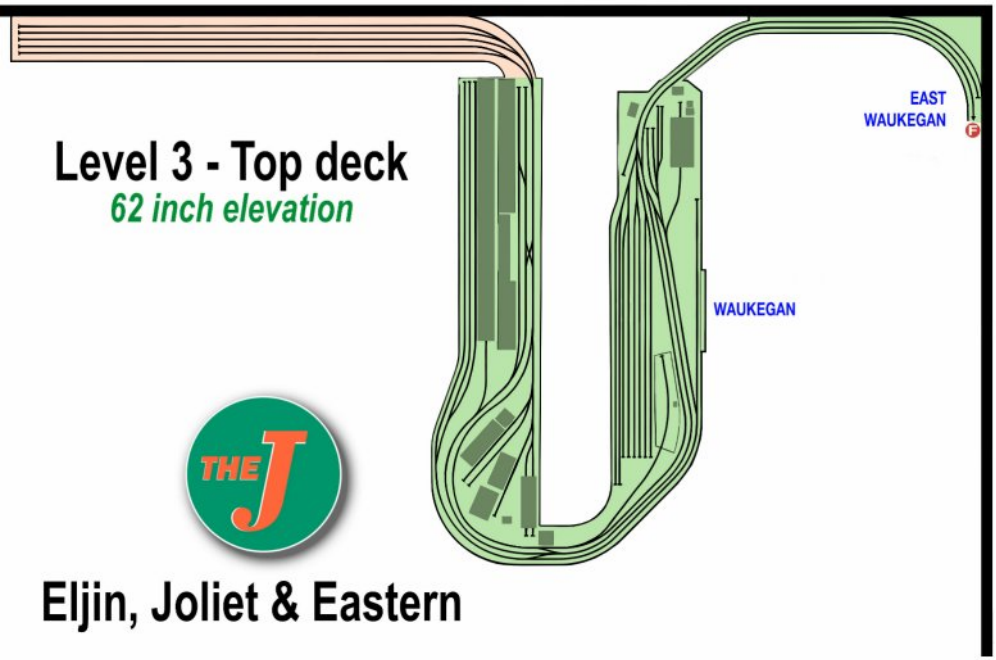
Slabs get delivered, some slag is taken out, and hot metal goes out. We bring a lot of coil cars in here to get loaded from the rolling mills. Also we've got a wire mill here and we've got a structural steel mill as well.

So a lot of different types of products come out of the mills here. As far as what comes in, there's fuel oil coming in, and various chemicals needed for making steel products.

4. Gary Yard

In the next aisle over from US Steel is the "J's" Gary Yard [12]. You can see the steel mill along the backdrop here. This yard has ten classification tracks fed off of a hump.

This yard has four arrival/departure tracks where the Saginaw Bay City & Southern units are coming in [12]. The front track is



10. This is the top-most deck of Waukegan. Underneath this location is the Galesburg staging and the Minneapolis staging at 56 inches. This connects with Level 2a at (F).

a mainline, which is a bypass track around the yard during an op session. We have a guy on one end of the yard making up the trains, and another fellow on the other end breaking down the trains. They keep pretty busy all night long.

5. Ivanhoe, Indiana & Gary engine facility

Here is the beginning of the double-track mainline from Gary up to Joilet Yard, starting here at Ivanhoe [13].

We've got some industries along the front such as this slag car spot. The slag comes from the blast furnaces where it gets floated off, and then comes over here to get dumped. This industry refines the slag and processes it into other products.

11. This recent new addition is South Works US Steel in Gary, Indiana, an extension out of US Steel Staging (see the Level 1 track plan]. There's plenty of steel-related industries here to switch.

12. A Saginaw, Bay City & Mackinaw train rolls through Gary Yard. On the backdrop you can see still more steel mills, a Gary, Indiana trademark.

Behind that we have the Gary Engine facility (see the level 1 track plan [6]). All of the engine trains come in, and get new

13. Across the aisle from Gary yard is Ivanhoe where the "J" mainline goes to double track that runs all the way from here to Joliet, Illinois. Along the backdrop you can see the raised track for the Gary hump yard.

power, and the existing power gets changed, and the caboose is pulled.

Then high up along the back wall is the lead for going up over the hump to Gary Yard.

6. Griffith, Indiana

The "J" double-track main going from Gary up to Joliet passes through Griffith, Indiana. This area has the massive diamonds where the Grand Trunk, the "J," the C&O, and the Erie Lackawanna all cross each other [14].

Eight staging tracks connect to Griffith, six of which lead back through a building behind the main (visible behind the conifers in the upper right of [14]. Two more tracks go into staging for general freight, coal traffic, and interchange traffic.

Two or three locals work this town locals during an operating session.

7. Dyer, Indiana

Dyer, Indiana is on the double-track mainline from Gary to Joliet, and a lot of industrial switching happens here [15].

Dyer has some joint yards here, where the Penn Central and the L&N bring their trains, drop cars, and pick up cars that interchange with the "J."

The locals, as they come through, also interchange their cars with these roads. At some point an actual L&N train and a Penn Central train comes out, and they do switching. So a lot of work goes on here during an op session.

There's usually two locals working here during the session, and then of course we have all the general freight traffic that comes through.

14. A Butte Mine & Eastern freight zips across the double track triple-crossing in Griffith, Indiana. Wow!

8. Chicago Heights

Chicago Heights [16] is along the double-track mainline from Gary to Joliet. The Missouri Pacific double-track crosses the "J"

15. An EJ&E-powered train rolls through Dyer, Indiana. The "J's" double track which continues all the way to Joiliet, Illinois. This town has a good number of industries to switch.

16. Here at Chicago Heights there's interchange with the Missouri Pacific and a number of industries to switch.

here in Chicago Heights at grade. There are a lot of other railroads that run through here. An MP interchange train comes out of staging in the back and interchanges cars.

There is a lot of industry here that gets switched, with a couple of different freights that also come through during the session.

Then we interchange with the Illinois Central (IC), which in reality is really six tracks, but we've modeled only three staging tracks. The IC is also the elevated two-track line here.

A couple of Illinois Central trains come out of staging and interchange with the "J." The Griffith Depot here was built right off drawings from the "J".

9. Brisbane, Illinois

Next is Brisbane, Illinois across the aisle [17]. The Norfolk & Western (N&W) railroad comes across on the elevated track.

Brisbane has an interchange yard with the N&W with three staging tracks along the back wall.

17. A Butte Mine & Eastern train rolls through Brisbane, Illinois. In the back is the Norfolk & Western interchange yard.

Brisbane also has an small interchange yard out front where locals come and drop off cars.

Sometime during the session, the N&W will come out and pick those cars up and drop new cars.

We've got a handful of industries here in town that get switched during the session.

10. Marble Falls, Illinois

Marble Falls, Illinois [18] has a couple industry spurs on one side, and the double track main with a passing siding serves as the last town before heading into the helix.

Marble Falls has a coal yard at the Butte Mine in the back, and it has a three track interchange yard with the Butte Mine & Eastern Railway, which is owned by my friend Bruce. Bruce runs a lot of coal traffic, so we handle a lot of coal cars here.

18. This is Marble Falls, Illinois. There's double track and a passing siding here as well as some interchange tracks.

11. Five-turn helix from Level 1 to Level 2

This five-turn helix connects the first and the second main levels of the railroad [19]. Marble Falls is at the bottom, and at the top around the corner we come to Joliet.

19. This five-turn helix connects the lower deck to the upper deck. Recently, John's crew elected to "daylight" the helix by opening it up and adding a bit of scenery, making easier to follow train progress.

20. At the top of the helix is a model of the Joilet train station built from actual plans of the station.

At the top of the helix is a close model of the Joliet station right in downtown Joliet [20]. The "J" really doesn't go by that station, but they did run an occasional train through there for various interchanging purposes. The helix is double-tracked with each track dedicated to a specific direction, and it's a total of five turns.

During COVID, the helix was completely closed in with just small windows. We completely opened it up and added a bit of scenery so you now can easily follow the trains as they progress up the helix.

12. Joilet, Illinois

Next on the upper deck is the Joliet, Illinois area [21]. At this location we have the major Joliet yard for the "J." It has ten tracks and a through track.

It's double-ended, so it gets switched on both ends during an op session.

The yardmaster on the east end is breaking down the trains, and the

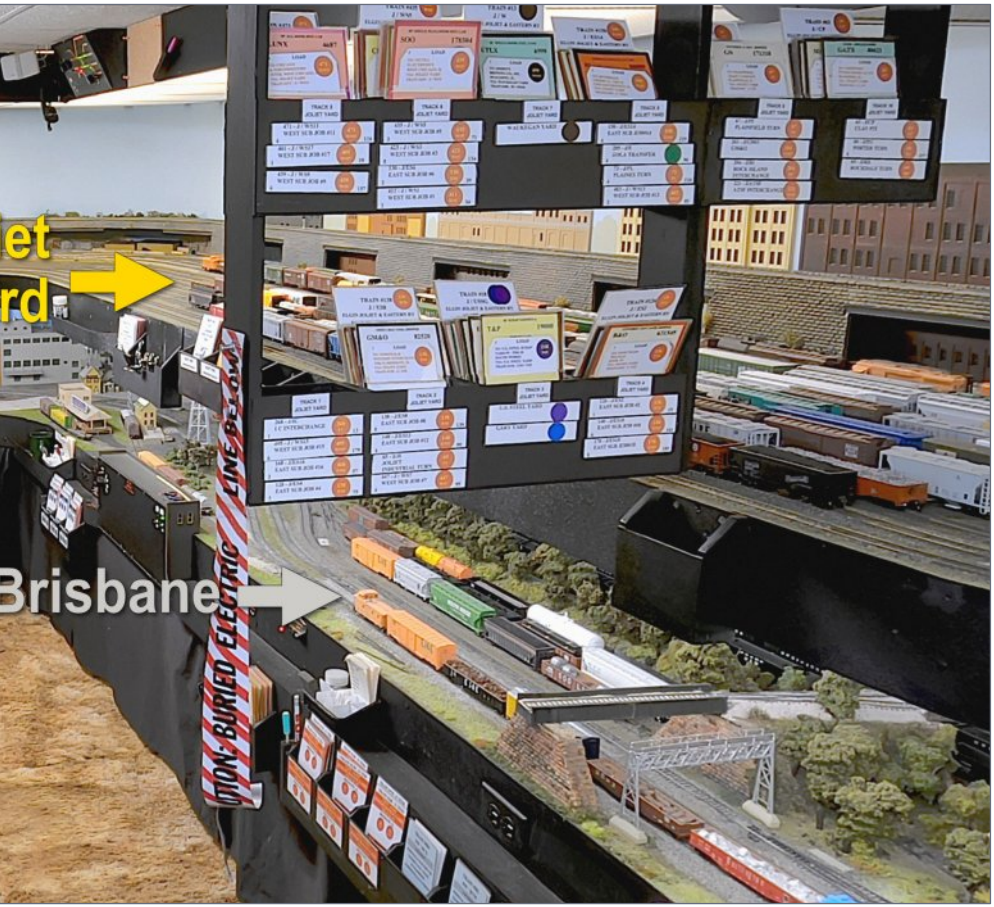
gentleman on the west end is making up the trains for outgoing traffic.

There are four arrival/departure tracks, and the one bypass track in the back.

21. This broad view shows Joilet Yard on upper deck 2a at 58 inches in context. You can also see Brisbane and Chicago Heights on the lower deck 1 at 38 inches. Across from Joilet Yard is Waukegan, which is top deck 3 at 62 inches. Note the 9" step up which aids in working the upper deck. Beyond that,

13. Coxnes, Illinois

In the back is Coxnes (pronounced like "Coins"), Illinois leaving Joliet Yard westbound [22]. We go behind the backdrop on this peninusla and go into the next aisle as we approach Plainfield.



we can also see Coxnes just behind Larry's head and Galesburg staging underneath Waukegan. There's a lot going on in this part of the layout.

22. You can see Coxnes in the upper left of this photo. There's a lot going on in this location of the layout, so labeling everything should help you get your bearings. The tower on the right is the scene in the article lead photo.

14. Toward Plainfield, Illinois

On the upper level is where we are coming back from Joliet Yard, after rolling through Coxnes, and heading toward Plainfield [23]. We have a grain company here in front below, which is actually Aurora (more on that next).

We go around the island here into Plainfield, and we've got a grainery on the other side – more on that in a moment. First, let's look at the track in front here in Aurora.

15. Aurora

The trackage here in the front is Burlington Northern (BN) trackage [24]. This trackage comes from Eola in downtown Chicago, Illinois, and heads out west and towards the big triple-track mainline of the Burlington.

23. An EJ&T freight approaches Plainfield. On the right is a grainery in Aurora [24].

24. A Burlington Northern freight rumbles through Aurora in the front while an EJ&E train rolls toward Plainfield on the back track.

Part of this track goes to the right down to Galesburg staging, and the other double-track goes up to Minneapolis staging.

Aurora has a number graineries on the BN Line that get switched during a session.

25. Across the aisle from Aurora there are two staging areas: the one in front represents Minneapolis and the one behind on the other side of the island represents Galesburg. See [21, 22].

26.This massive LD Grain company elevator in Plainfield is serviced by the "J". The track in front belongs to the BN.

16. Minneapolis / Galesburg staging

Across the aisle from Aurora we have two staging areas [25]. The one along this side of the aisle is Minneapolis staging. The one on the other side of the island is Galesburg staging.

Trackage from both of these staging areas comes together and merges just like on the real Burlington (see track plan [8]). After the merge, the track heads on to Eola, on through Eola Yard, and then on to Chicago downtown.

17. Plainsfield, Illinois

The elevated track in the back is EJ&E trackage in Plainfield.

The LD Grain company [26] gets switched by the "J." From here the "J" continues along the back wall past Ellis's Sport Equipment, goes past the Burlington Northern Eola Yard and heads on towards West Chicago.

27. Here at East Aurora on the BN, the US Steel Rolling Mill processes loads from the US Steel Gary operation.

18. East Aurora, Illinois

In East Aurora, Illinois we have the US Steel Aurora Rolling Mill [27]. Daily trains from the US Steel Gary works travel up to this Rolling Mill to be processed.

We also have general freight that comes in on the BN, and they also haul some ore up here. The ore train runs probably once an op session. This BN trackage continues behind me through Eola Junction, and then goes across the aisle into Eola Yard. At that point we're heading eastbound towards Chicago.

19. Eola Yard

Across the aisle from East Aurora is Eola yard [28]. This is the Burlington Northern main where Rochelle and Galesburg trains come together and head into Eola yard.

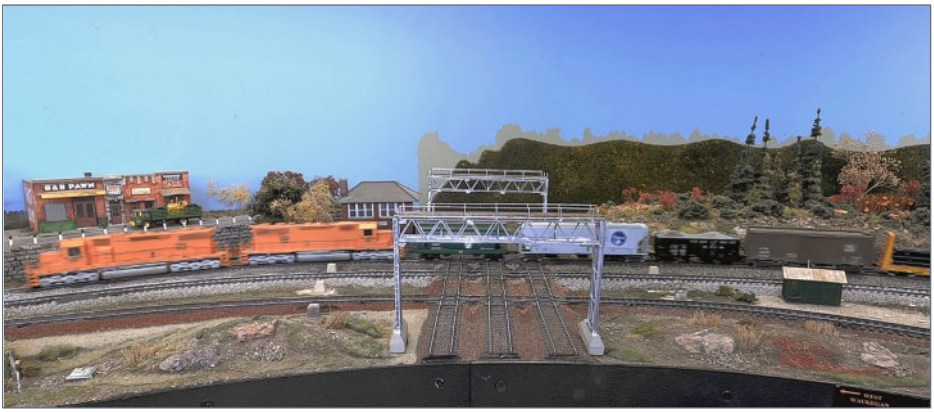
The "J" interchanges coal and general freight traffic out of this yard [8]. The route left (D) heads toward Waukegan, and the route right (E) heads to Joliet and on to Gary, Indiana.

28. This is BN's Eola yard. In the upper right distance, you can barely see the view that's in [29].

As you can see, there's a nice view of the Chicago skyline just beyond the bridge where that "J" train is going over the top of the BN trackage [29].

The BN triple-track main [29] goes all the way to downtown Chicago.

29. This iconic "J" Line scene (this month's MRH cover) shows the Chicago skyline in the distance. The "J" crosses overhead, while the three-track BN mainline heads toward downtown Chicago.



30. An EJ&E train rolls over the triple-track crossing with the Chicago Northwestern at speed as it approaches West Chicago.

20. West Chicago, Illinois

Here the "J" crosses the Chicago Northwestern triple-track line going from Omaha to Chicago [30]. You can see the signal bridges here protecting the crossing.

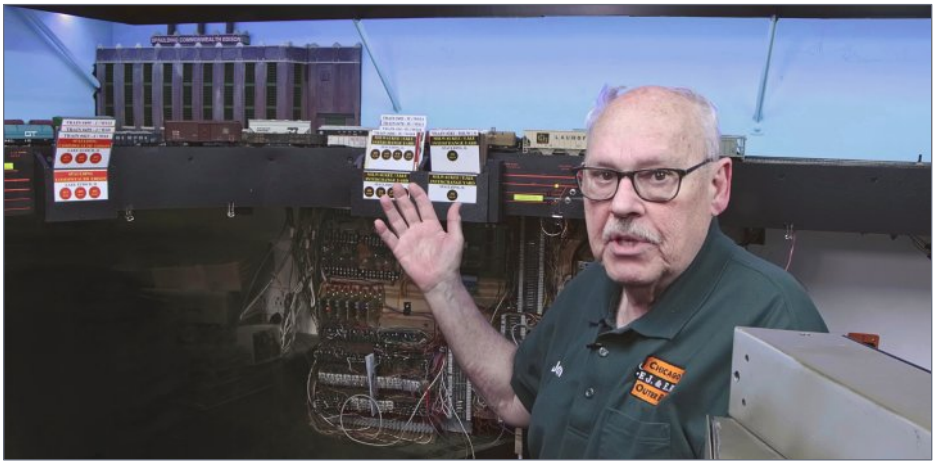
There's a lot of industry in West Chicago that gets switched here, and there's also an interchange yard where the "J" drops off the CNW cars.

Eventually, the CNW comes over and picks cars up, then works the industries here.

21. Lake Zurich, Illinois

Going from West Chicago through the North Avenue area, the line curves around and enters my workshop where we have Lake Zurich, Illinois and Spaulding [31].

There's a powerhouse here to switch, and then we've also some interchange traffic for the Milwaukee Road. The "J" comes by and drops off two or three cars from each train.



31. Lake Zurich / Spaulding is located in the workshop area on the upper deck.

At some point in time the Milwaukee will come out, pick those cars up, drop off other cars, and then go back to their railroad.

22. Forest Lake, Illinois staging

Just across from the furnace and water heaters is the Forest Lake staging area on my railroad [32], and it basically handles a lot of interchange here.

We've got the NC&P interchange, which is the Northern Chicago and Pacific. That is a railroad that I had probably 35 years ago, and I just decided not to get rid of the equipment. Consequently the "J" has an interchange with that railroad, with the traffic consisting largely of coal.

There's a Milwaukee train that comes out of here and switches the interchange at Spaulding, and then there's a local on the "J" that runs out of here.

The mainline runs behind the yard. There's eight tracks in front that run the length of the staging area. There's a Soo Line and a Milwaukee interchange track down on the far end that go out towards Leithton and Rondout.

32. Forest Lake yard sits across from the furnace and the hot water heaters.

33. In Leithton, Illinois, the "J" crosses the Soo Line. There's also a good bit of industrial switching here.

23. Leithton, Illinois

Next we get to Leithton, Illinois [33]. Soo Line crosses the "J" here. We're heading toward Waukegan, which goes off to the left (westbound).

There's a single-track interchange yard here where the "J" drops off cars. From there the Soo Line comes and picks up those cars as interchange.

24. Rondout, Illinois

Next westbound is Rondout, Illinois [34]. At Rondout, the Milwaukee crosses the "J" and does interchange with them.

There's a lot of industrial area as well, and there's an interchange yard also. The Milwaukee comes out of their yard, which is a staging track along the backdrop, and switches about a dozen cars at a time.

Two or three "J" locals will pick up those cars and take them to other industries, or to other railroads. From here, we continue west toward Waukegan.

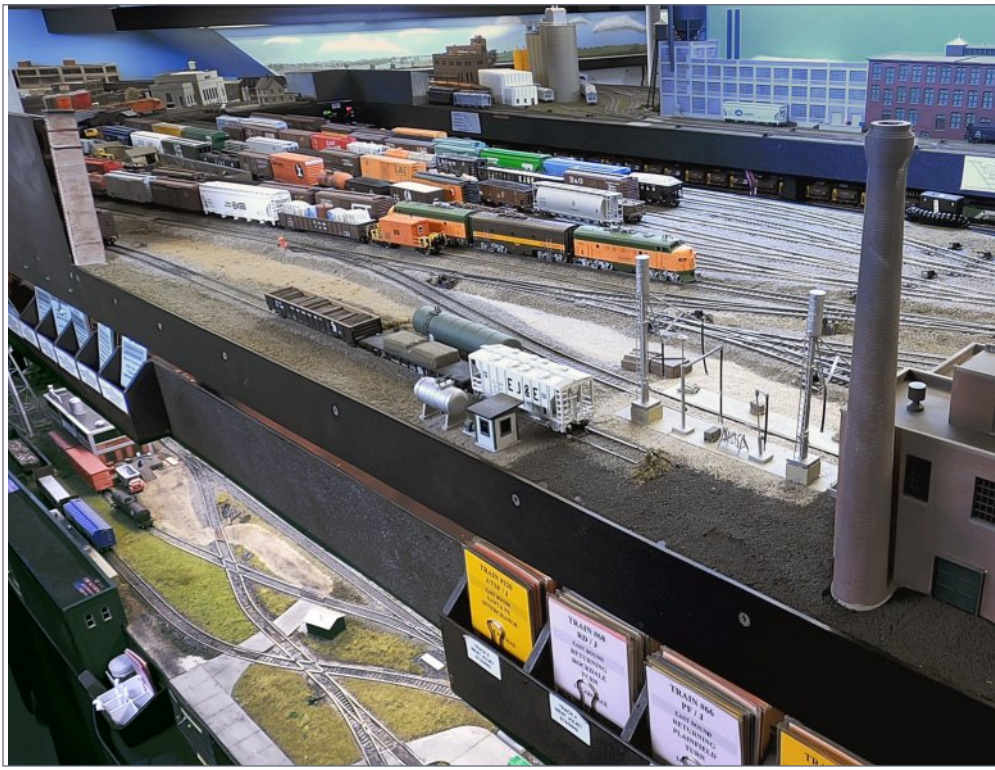
34. At Rondout, Illinois in the distance where the signal bridge is, the "J" crosses the Milwaukee Road.

35. The Wakegan River bridge (a nod-under) represents the "J's" crossing of the Waukegan River.

25. Waukegan River bridge

Here at the Waukegan River bridge [35], we're north of Chicago. We've got a little bit of a switching behind the bridge to do. At this location, the Waukegan River actually flows underneath – it is quite a wide river.

36. East Tenth Street area just above the helix runs along the back wall. It's mostly downtown structures with no switching.



26. East Tenth Street

Here in the back along the wall behind the helix is the East 10th Street area [36], which is basically a main and a siding.

There's a lot of trains that wait here trying to get into Waukegan Yard. Waukegan is to the left (westbound), and to the right (eastbound) heads towards Rondout and Joilet. There's a little bit of industry along the backdrop, but nothing switched by the railroad. This is primarily all just downtown.

27. Waukegan, Illinois

Finally we reach Waukegan Yard [37], which has three arrival/departure tracks, and eight yard tracks that get worked here.

There is some industry here, as well as an engine facility. On the far side across the access aisle is some industry that gets switched a couple of times during a session.

On the other side of that far wall is a Waukegan powerhouse, which runs the whole length of the wall - an operator accesses that trackage from the next aisle over. There's a coal train over there that gets worked almost every operating session. ☑

Check out this month's bonus downloads for a zoomable track plan and still more photos of John's layout ...

37. Finally, we reach the top deck and Waukegan, Illinois. Not only is there a yard to work, but there's also industries across the access pit that get switched as well.

LOOK
column

Model Railroad Hobbyist | June 2025

VIEW READER COMMENTS

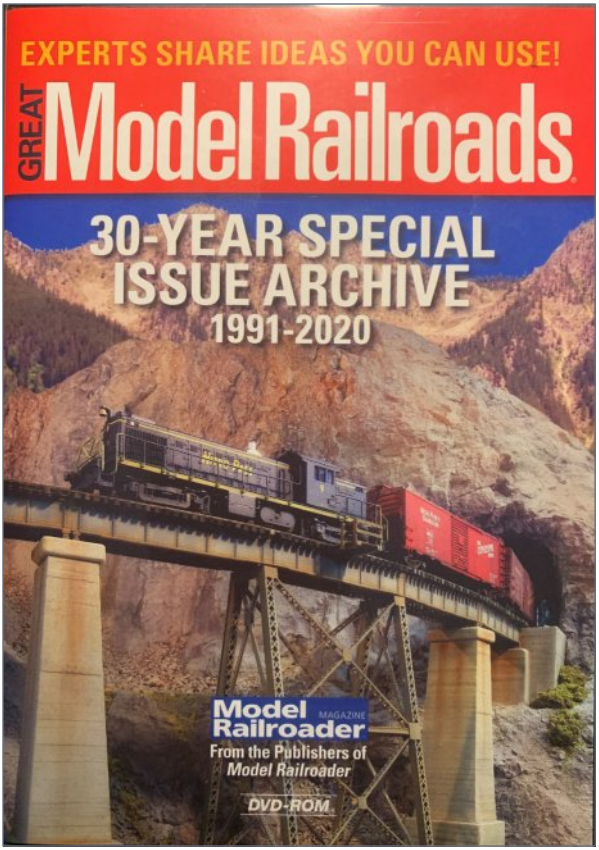
Jeff Palmer reviews the Great Model Railroads: 30-Year Special Issue Archive 1991-2020...

Editor's Note: Kalmbach (now Firecrown Media) released Great Model Railroads: 30-Year Special Issue Archive 1991-2020 several years ago as a DVD-ROM. The selection is still available as a DVD from the trains.com store.

At the start of every new year, I look forward to the release of a special-issue magazine named *Great Model Railroads,* from the publishers of *Model Railroader.* In 2021, I got an extra treat: *Great Model Railroads: 30-Year Special Issue Archive 1991-2020.*

I've always admired the detailed documentation of layouts in *Model Railroader (MR).* I often refer to the *MR* database when I'm looking for inspiration for a layout. The details in the diagrams, elevations, and maps allow you to exactly recreate that layout and the scenery.

For those new to the hobby or starting a first layout, these diagrams and plans are priceless. Starting in 1991 Kalmbach,



the former publishers of *MR,* issued an annual special edition: *Great Model Railroads*.

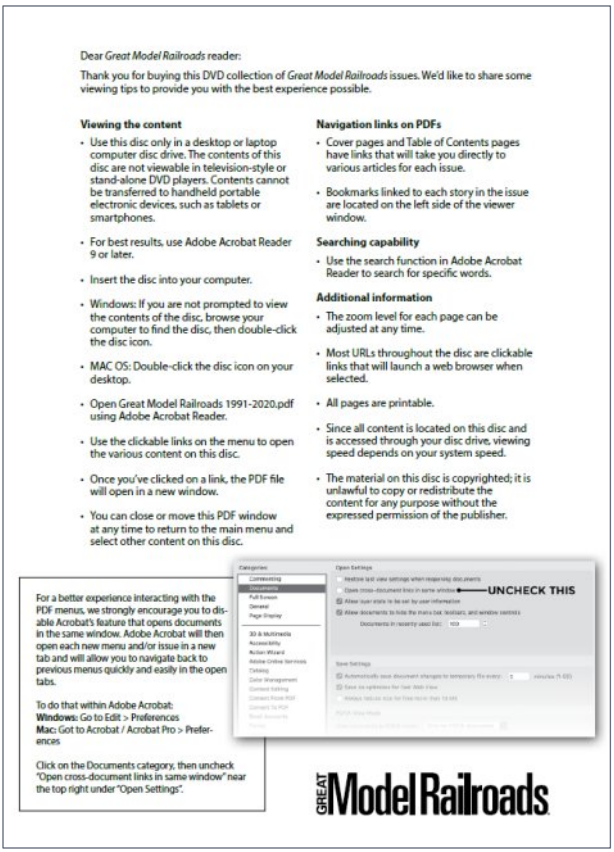
In 2011, Kalmbach (now Firecrown Media) released *Model Railroader Special Issue and Archive Collection,* which contained the first 21 years of *Great Model Railroads,* along with many other special issues. When they released this 30-year archive, I wasted no time adding it to my library. While the internet is a great research tool, these articles are written to provide details that are tough to catch by watching a video.

Kalmbach had previously released a DVD archive publication in 2009: *Model Railroader Magazine: 75-year Collection,* and it

set a very high bar. Its ease of use and search capabilities are outstanding, and the 2011 *Model Railroader Special Edition and Archive Collection* met that standard.

I was looking forward to the 30-year special archive, and hoping it would be a worthy replacement. Opening the case, I found a single DVD and an instruction sheet for using the disk. When I inserted the DVD into my computer, it did not start as expected. Unlike the earlier DVD ROMs from 2009 and 2011, there were no AUTORUN, MSI, EXE files, or SETUP program/script.

Instead, there was a "PDFs" folder and two PDF files: "How To Use.pdf" and "Great Model Railroads 1991-2021.pdf." Opening the "PDFs" folder revealed PDF files for each of the annual *Great Model Railroads* publications between 1991 and 2020. The publishers assume you already have software capable of reading PDF files.



Dear *Great Model Railroads* reader:

Thank you for buying this DVD collection of *Great Model Railroads* issues. We'd like to share some viewing tips to provide you with the best experience possible.

Viewing the content

- Use this disc only in a desktop or laptop computer disc drive. The contents of this disc are not viewable in television-style or stand-alone DVD players. Contents cannot be transferred to handheld portable electronic devices, such as tablets or smartphones.
- For best results, use Adobe Acrobat Reader 9 or later.
- Insert the disc into your computer.
- Windows: If you are not prompted to view the contents of the disc, browse your computer to find the disc, then double-click the disc icon.
- MAC OS: Double-click the disc icon on your desktop.
- Open Great Model Railroads 1991-2020.pdf using Adobe Acrobat Reader.
- Use the clickable links on the menu to open the various content on this disc.
- Once you've clicked on a link, the PDF file will open in a new window.
- You can close or move this PDF window at any time to return to the main menu and select other content on this disc.

Navigation links on PDFs

- Cover pages and Table of Contents pages have links that will take you directly to various articles for each issue.
- Bookmarks linked to each story in the issue are located on the left side of the viewer window.

Searching capability

- Use the search function in Adobe Acrobat Reader to search for specific words.

Additional information

- The zoom level for each page can be adjusted at any time.
- Most URLs throughout the disc are clickable links that will launch a web browser when selected.
- All pages are printable.
- Since all content is located on this disc and is accessed through your disc drive, viewing speed depends on your system speed.
- The material on this disc is copyrighted; it is unlawful to copy or redistribute the content for any purpose without the expressed permission of the publisher.

For a better experience interacting with the PDF menus, we strongly encourage you to disable Acrobat's feature that opens documents in the same window. Adobe Acrobat will then open each new menu and/or issue in a new tab and will allow you to navigate back to previous menus quickly and easily in the open tabs.

To do that within Adobe Acrobat:
Windows: Go to Edit > Preferences
Mac: Got to Acrobat / Acrobat Pro > Preferences

Click on the Documents category, then uncheck "Open cross-document links in same window" near the top right under "Open Settings".

UNCHECK THIS

GREAT Model Railroads

Saddened, I clicked on the "How To Use" PDF. This opened a one-page

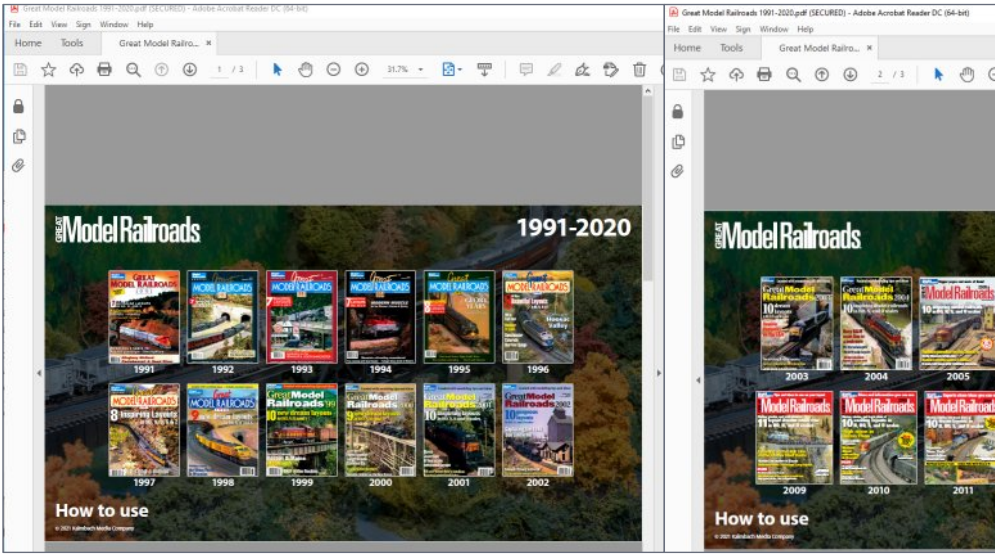
2. The "How to Use" file provided instructions for searching, viewing, and printing the PDF files.

document with instructions for how to use Adobe Acrobat Reader, a printed copy of which was already included inside the DVD cover [2].That was disappointing.

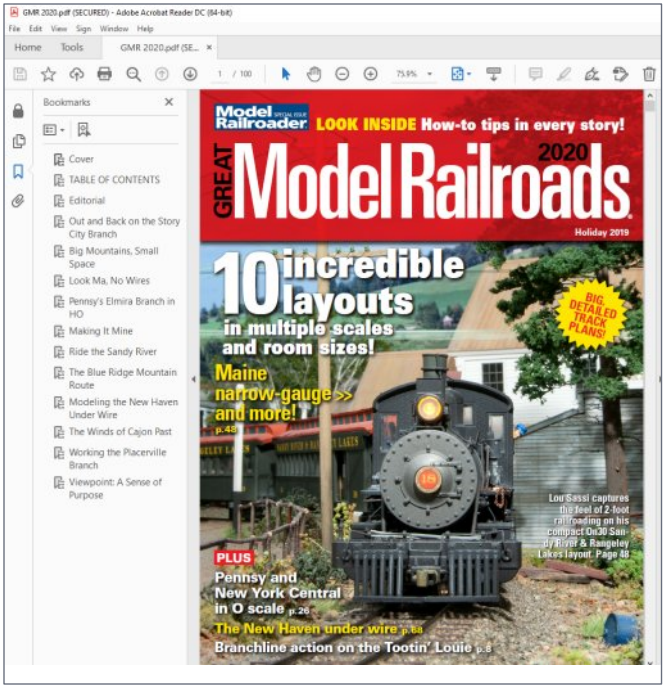
I read the document searching for what eluded me. Did PDF documents acquire some new features? Was there a hidden script or program that needed to be executed? All of these scenarios failed. There were the two main PDFs and the folder.

Opening "Great Model Railroads 1991-2021.pdf" revealed a three-part screen, displaying all 30 covers of *Great Model Railroads* [3]. The cover images are clickable, and each navigates you to a separate PDF with that issue.

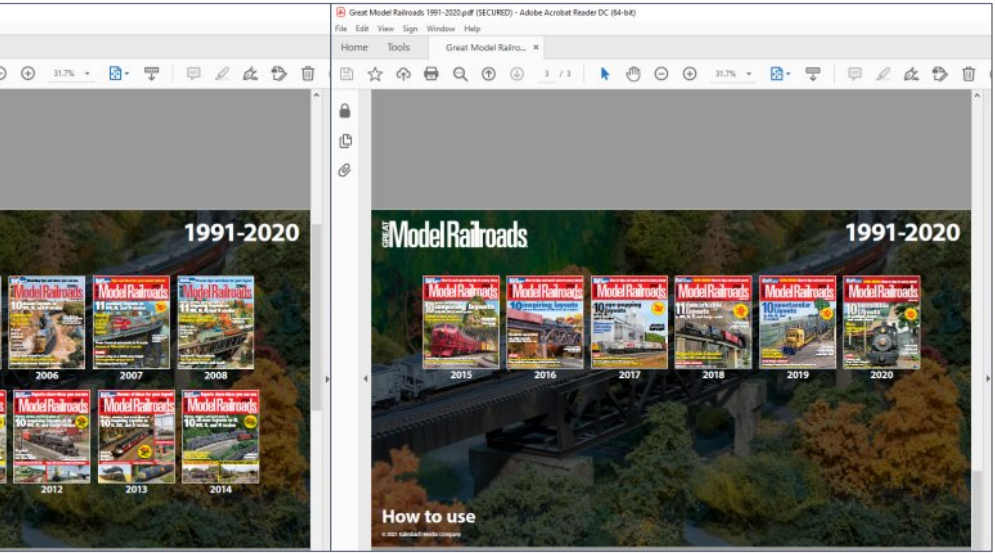
I clicked on the cover for 2020, and it navigated to another PDF, "GMR 2020" [4]. Turning the page in the PDF took me to the Table of Contents for the 2020 issue [5]. Tom Ebert was one of the authors in the 2020 edition, and clicking on his article in the Table of Contents took me to the article [6].

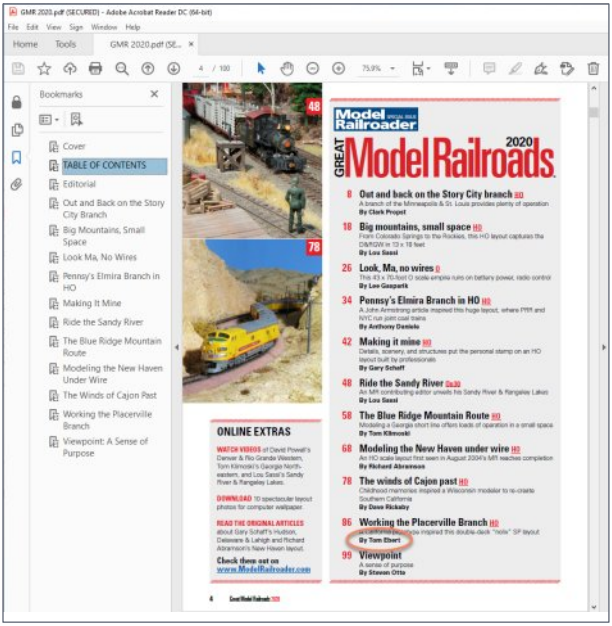


3. The three-part menu screen.

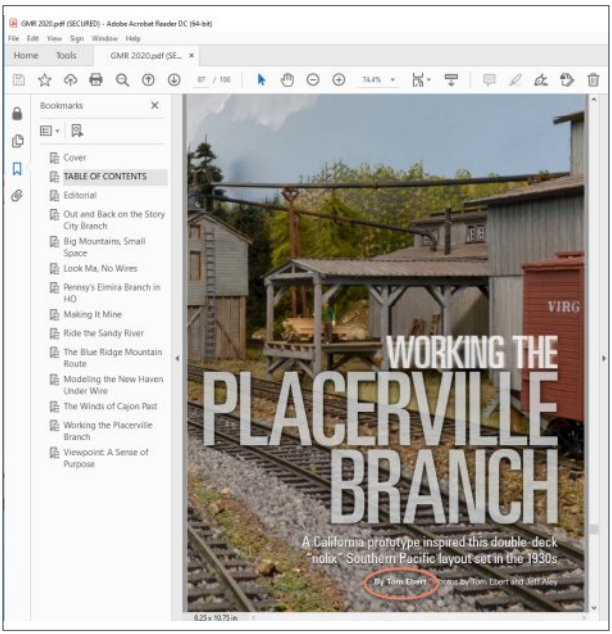


4. The 2020 cover page. At left is a list of clickable titles.





5.The table of contents for *Great Model Railroads 2020.*



6.Tom Ebert's article.

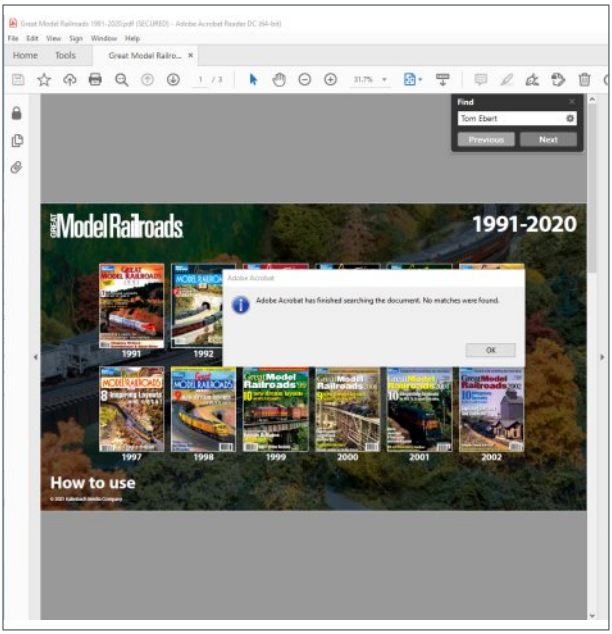
Having found Tom Ebert's article, I decided to use it to do a test of the search function. I returned to the "Great Model Railroads 1991-2021" PDF, and did a search [CTRL+F], and typed in his name. The search result found "no matches" [7].

I found that in the default setting, with the radio button set to "In the current document," I got the same result as the first query. No matches. "0 document(s) with 0 instance(s)."

The difficulty is that as PDFs are designed, the default search function will search only the current PDF document you have open. The archive consisted of more than 30 PDF files, one for each year's issue of *Great Model Railroads.*

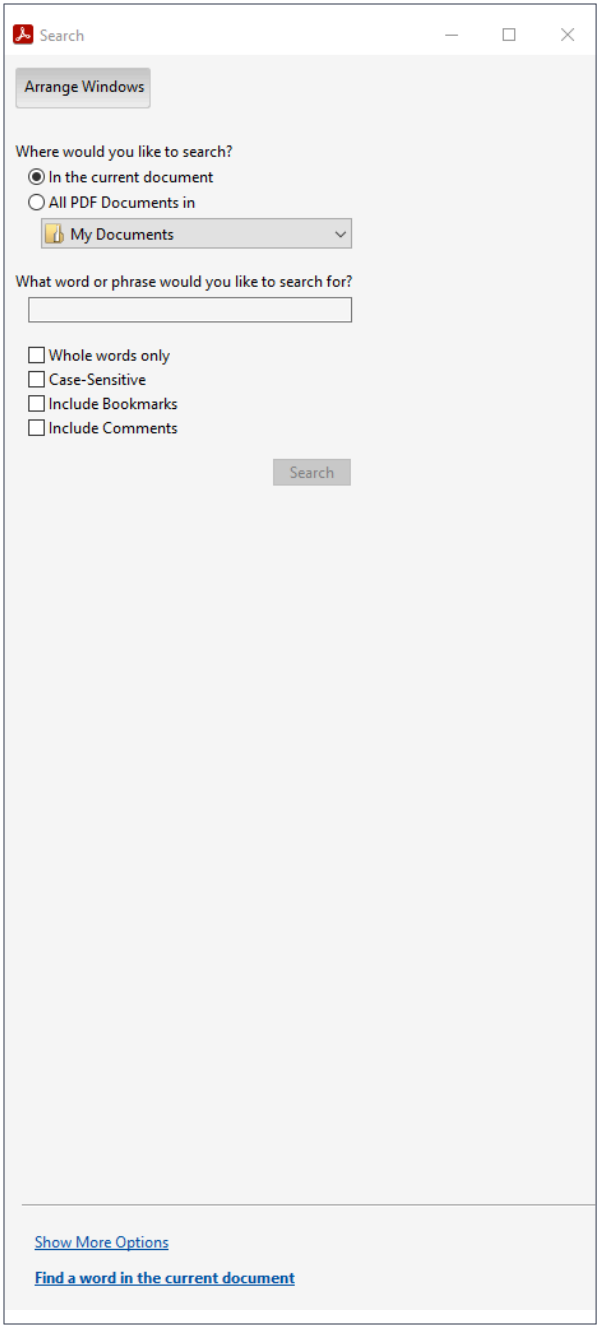
This made a search across multiple issues much more difficult. I tried the advanced search again, this time selecting the radio button next to "All PDF Documents in." I selected my DVD drive as the location, and repeated the search.

Searching using this method yielded 10 matches, all within the "GMR 2020" PDF. This was more than I expected, but a great improvement.



The "How To Use" PDF is truly inadequate; this article offers better detail on how to search the archive over multiple PDF files. The search process over the multiple PDFs in the archive is

7. Searching the document was not intuitive. My initial search yielded nothing.



8. The advanced search dialog box. To search over multiple PDFs, you must select the "All PDF Documents in" radio button and your DVD Drive's location in the dropdown menu.

VIEW READER COMMENTS

slower, less straightforward, and less convenient than in previous releases.

Previous archive releases offered users an intuitive search function on the central starting page to search every issue the archive contained at once, this *30-Year Special Issue Archive* had no such system. While the methodology outlined in this article works, it's a poor substitution.

The lack of back arrows or buttons makes navigation difficult. Although opening additional windows is a solution, it is a clumsy one.

The archive is disappointing. Kalmbach provided a great, user-friendly archive with the *Model Railroader Special Issue and Archive Collection,* but the *30-Year Special Issue Archive* didn't meet that standard. Instead, they chose to dump their electronic version of the magazine onto PDFs and call it a day.

If you want to save shelf space, this archive will accomplish that goal, but why not just subscribe to the electronic version of the magazine, which includes all back issues? The results would be the same. ☑

Jeff Palmer

Jeff spent 50 years developing software, and 25 years as a college professor. As a modeler, he has an interest in logging and mining (narrow gauge). He loves structures and scenery.

About two years ago, he completed his MMR (Master Model Railroader) certificate from the NMRA. ■

Savvy Modeler Online

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Installing a stay alive in an model diesel

YouTuber **ModelTrains365** shares step-by-step instructions on how to install a TCS K4 Keep-Alive® in an Athearn Genesis MP15.

View reader comments

The methods he shows can be generalized to almost any HO or larger model diesel locomotive, and the methods will also work for other brands of stay alive circuits such as those from ESU, SoundTraxx, DCC Concepts, and Nixtrainz. Once you see how nicely your loco runs with a stay alive circuit in it, you will want to upgrade your entire fleet! ☑

▶ GREAT MODELER VIDEOS ON THE WORLD WIDE WEB

JUNE NEWS column

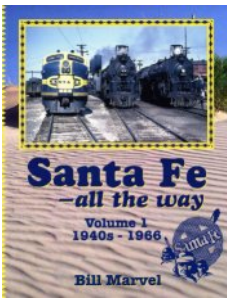
RICHARD BALE AND JEFF SHULTZ
REPORT THE LATEST HOBBY INDUSTRY NEWS ...

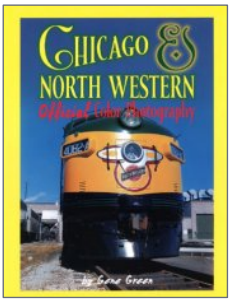
VIEW READER COMMENTS

CLUB CARS

The **Penn Central Railroad Historical Society** is offering an HO scale EMD NW2 switcher. The limited edition model is being produced for PCRRHS by Walthers. The model is available in standard DC or factory equipped with an ESU Sound & DCC decoder.
Info: www.pcrrhs.org/store

NEW PRODUCTS FOR ALL SCALES





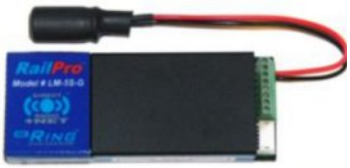
Newly formatted digital reprints from **Morning Sun Books** include volume 1 of *Santa Fe - all the way.* Author Bill Marvel presents a look back at AT&SF during its steam to first generation diesel heyday with over 240

classic photographs from the 1940s, '50s and '60s that chronicle everything from FTs to GP35s to 4-8-4s.

Also new from Morning Sun is *Chicago & North Western Official Color Photography,* a fascinating collection of company photographs that captures new diesels, new equipment, special events and other CNW achievements from the 1940's onward.
Info: www.morningsunbooks.com

LARGE SCALE PRODUCT NEWS

Bachmann Trains is selling a well-detailed 1:29 scale tank car. Road names on this release include two numbers each for Texaco, Shell, and Quaker State. A Christmas themed version is also available. The large scale model is designed to operate on 45mm gauge track and comes with Bettendorf-style plain-bearing trucks with blackened metal wheels.
Info: www.bachmann-trains.com



Ring Engineering has introduced the LM-5S-G, a large scale locomotive module with sound. Designed for use with a RailPro controller such as the HC-3 or HC-3-SUN, it is a direct radio receiver that will control speed, direction, up to 12 light outputs, and sound. Using Ring's Radio Load Sharing technology, multiple RailPro equipped locomotives that are consisted together will communicate between each other to coordinate power.
Info: www.ringengineering.com/LM-5S-G.htm

HO SCALE PRODUCT NEWS

New economy priced car kits from **Accurail** include this Philadelphia & Reading 36′ double-sheathed wood boxcar with steel ends and a fishbelly underframe. The HO scale model is based on a prototype built by Pullman in 1918.

The prototype of this Texas & Pacific/ Missouri Pacific twin bay Center Flow covered hopper car was built by ACF in 1967.

Also new from Accurail is a kit for this Delaware, Lackawanna & Western 36′ double-sheathed wood boxcar from the early 1920s. The model features steel ends, a steel roof, and a straight steel underframe.

Pullman built the prototype of this 40′ PS-1 boxcar in 1952. Note the six-panel PS sliding door. All Accurail car kits come with appropriate trucks with Delrin wheelsets and Accumate knuckle couplers.
Info: accurailinc.com

New models just released to **Athearn** dealers include a 50′ FMC 5277 cu. ft. boxcar that features a Pullman-Standard corrugated steel sliding door. Additional details include separately applied wire grab irons and etched end platforms.

Road names on this release include Railbox, Chicago & North Western, Frisco, St. Mary's Railroad, St. Johnsbury& Lamoille County, and Southern Railway.

Athearn has also shipped a new release of 42′ chemical tank cars to dealers. The models have a separately applied brake wheel, wire safety handrails, and roller-bearing trucks with machined metal wheelsets.

Road names are Procor, Domino Sugar, New Jersey Zinc, Hooker Chemicals, Crystal Car Line, and three ACFX lease schemes. Both the tank car and 5277 boxcar come with McHenry operating scale knuckle couplers. Info: www.athearn.com

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R. Bale

EMD GP38-2 Diesel Electric Locomotive

Electro Motive Division's GP38-2 was a popular moderate speed road switcher produced between 1972 and 1986. Top speed was limited to 65 mph. The GP38-2 was powered by EMD's reliable 2,000hp 645E V16 diesel prime mover. The essential difference between the GP38-2 and the basic GP38 was the Dash 2 used modular electronics. There were no significant exterior differences between the two locomotives.

Atlas is preparing to release HO scale models of an EMD GP38-2 road switcher early this summer. The affordable Trainman Series model will have the same drive as Atlas' upscale Master Series models including a heavy diecast underframe, a five-pole skewed armature motor with dual flywheels, and Accumate knuckle couplers. Additional details

include separately applied hand rails and drill locating dimples for installation of grab irons.

Atlas GP38-2s decorated for BNSF, Canadian National, HLCX, and Southern Pacific will have 3,600 gallon fuel tanks. Amtrak, Delaware & Hudson, Farmrail, Conrail, and Reading & Northern GP38-2s will have smaller 2,600 gallon tanks.

Atlas Silver models are set up for DC operation and have a speaker and an NMRA 21-pin plug for installation of an aftermarket DCC decoder. Atlas Gold models come with a factory installed LokSound Select DCC decoder.

Atlas has released a new production run of 42′ coil steel cars to its dealer network. The HO scale model is based on a prototype developed in the 1960s to haul coils of steel in a trough. Spotting features include a distinctive fishbelly underframe. Other details include see-through walk ways, uncoupling levers, and a removable hood.

Road names available in this release are AOK (ex-CSXT), FURX (ex-NOKL), Grand Trunk Western, Mitsui Rail Capital, CAGY, Kansas City Southern, and South Chicago & Indiana Harbor.

Check with a dealer for availability as the factory is sold out of some road names. Info: www.atlasrr.com

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Among the newest HO scale models released by **Bachmann** is this Trinity 5161 cu. ft. triple bay covered hopper car. Two road numbers each are available for BNSF, Canadian Pacific, CSX, and Norfolk Southern.

Separate details added to the plastic injection molded body include see-through crossover platforms and roof walk. The models come with E-Z Mate Mark II knuckle couplers and blackened metal wheels.

Bachmann is preparing to release a 5-unit Amtrak Acela II train set. The set will include two locomotives (one powered, one non-powered), a first class passenger car, café car, business class quiet car, power pack and an oval of 22″ radius nickel silver E-Z track with concrete ties. Additional business class cars will be available in six road numbers.

The DC powered locomotive will come with a factory installed speaker for upgrading to sound and DCC with an aftermarket decoder. The powered unit will have a selector switch for rail or pantograph operation. Both the powered and non-powered locomotives will have ditch lights, marker lights, and directional headlights. The passenger cars will have furnished interiors with LED lighting and an articulated coupling system. Info: www.bachmanntrains.com

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VIEW READER COMMENTS


R. Bale

EMD SD70ACe

EMD developed the SD70 series of diesel-electric locomotives to counter GE's popular Dash 9-44CW. More than 5,700 SD70 units have been produced since production began in 1992, with most being SD70M and SD70MAC models. The SD70ACe is the successor to the SD70MAC with several design changes to comply with emission standards. The SD70ACe engine features fewer components in the inverter and functions with 15 percent lower internal pressure to significantly reduce emissions. Tier 2 versions of the SD70ACe are rated at 4,300hp. Subsequent Tier 3 models are rated at 4,500hp.

Broadway Limited is booking reservations for a second production run of its popular EMD SD70ACe diesel locomotive.

The HO scale model has a diecast metal body, and metal handrails and stanchions.

The Paragon4 Series models feature sound, variable-intensity smoke, DCC compatibility, and built-in GoPack capacitors for uninterrupted operation over electrical gaps. Stealth series DC/DCC ready with no sound will also be available.

Road names, including heritage schemes, are Norfolk Southern, Kansas City Southern, Ferromex, Union Pacific, UP-Powered by Our People, MKT, and Western Pacific.

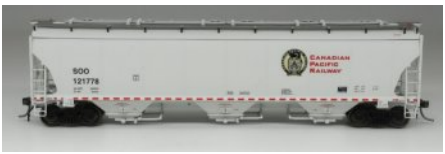
Models decorated for New York Central, Virginian, Wabash, Central of New Jersey, and Illinois terminal will be available exclusively through Hobbytyme Distributors. (Contact a dealer).

Two fantasy schemes, Pennsylvania Railroad and Gabreski, will be available exclusively from Trainworld (www.trainworld.com).

Availability of the SD70ACe is scheduled for fall 2025. Planned releases from Broadway Limited this month include EMD GP35, Union Pacific Big Boy, PRR B6sb, and

heavyweight passenger car models.
Info: www.broadway-limited.com

Intermountain Railway has released an HO scale model of a Trinity 5161 cu. ft. triple bay covered hopper car. The model is based on a prototype introduced in 1995 that had long trough loading hatches suitable for grain service.



Road names in this release include CSX, Norfolk Southern, BNSF, Canadian Pacific-Soo Line, and ADM. Paint schemes in the BNSF Heritage series are Burlington Northern, Great Northern, Frisco, The Denver Road (Fort Worth and Denver), and Spokane, Portland & Seattle.

The newly-tooled HO scale model features an etched metal roof walkway, formed wire details, Kadee couplers, and roller-bearing trucks with 36″ machined metal wheels.
Info: www.intermountain-railway.com

Kadee's latest HO scale release is a 50-ton flatcar decorated for NKP – The Nickel Plate Road. The ready-to-run model is based on an AAR prototype built in 1942. Each model comes with single board side rails, double board side rails, stake poles and a drop staff brake wheel. Additional features include Kadee #158 Magne-Matic metal couplers with delayed centering action and Bettendorf 50-ton plain-bearing trucks with 33″ metal wheelsets.
Info: www.kadee.com

Prairie Shadows is developing a Thrall 5150 cu. ft. triple bay covered hopper car. Variations planned for the HO scale model include multiple brake components, different outlet gates and trough hatches, different roping equipment and corner steps, and Barber S2 or S2-HD trucks with 36″ machined wheels. A tentative release date is set for the first quarter of 2026.
Info: prairieshadows.com

R. Bale

PRR E44 ELECTRIC LOCOMOTIVE

In the 1960s, the Pennsylvania Railroad needed a new electric motor (locomotive) to replace their aging P5a motors, which had been in service since the 1930s. The replacement was the E44, an electric rectifier-equipped locomotive built by General Electric between 1960 and 1963. The E44 was able to output 4,400 horsepower in a boxy shape, which ultimately helped gain its nickname of "brick". Sixty class E44 electric motors were built by GE with a silicon diode rectifier. Sixty additional locomotives were built with an ignitron rectifier system. The PRR used the E44 for freight service on the Northeast Corridor. They continued in service under Penn Central and Conrail until Conrail abandoned its electric operations in the early 1980s. The aging E44s were then acquired and operated by Amtrak and NJ Transit until retired in the mid-1980s.

VIEW READER COMMENTS

Rapido has announced plans to produce an HO scale model of an E44 electric locomotive. Both Conrail and Pennsylvania Railroad versions will be available.

The model promises to be an accurate rendition of the prototype GE built for PRR in the 1960s.

Road number-specific details on Rapido's HO scale version include three styles of roof and hood vents, and three styles of hood doors and end doors.

Additional details include Faiveley pantographs (operational in DCC), cables, S3LR horn, full cab interior with lighted consoles, and Mo-Power capacitor system for uninterrupted running.

Decorating schemes include Pennsylvania, Amtrak and two schemes each for Penn Central and Conrail. An additional fantasy Amtrak Phase III scheme will also be available.

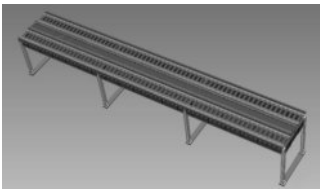
DC/Silent (21-pin DCC Ready) and DC/DCC/ESU LokSound system will both be available.

Rapido Trains is developing an HO scale transit system that includes elevated track and Chicago Transit Authority Budd 2600 series 'L' cars. The cars replicate the 600 class 2600 cars Budd delivered between 1981 and 1987. Rapido will offer both the original cars as well as modern day rehabilitated versions with reconfigured operator seating and windows.

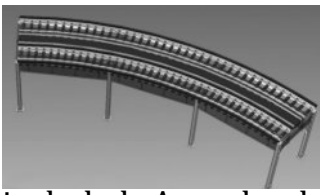
Like the prototype, the models will be available as a married pair with just one powered. Both cars will have headlights, marker lights, interior lights, and marker/destination lights. Additional features on Rapido's CTA L cars include lighted front and rear signboards, full underbody detail, and wire grab irons.

CTA decorating schemes offered on the initial release will be As-delivered, Speedlines logo, Circle logo, Work Motor, Pink Line promotional scheme, and White and green 75th Anniversary scheme. Painted but unlettered models will also

be available. Both DC/DCC ready, and Dual-Mode DCC/ Sound models will be available.



Rapido is also producing Chicago style L bridge components suitable for operating or displaying the L cars.



Each bridge section will include nickel silver rail with the curved sections having CTA's unique heavy guardrail on inside curves with bolt detail. A third rail and center walkway will be included. An order deadline and delivery date on the L cars and bridge equipment is TBD. Images in this report are courtesy of Rapido trains.
Info: www.rapidotrains.com

ROKA Prototype is selling five HO scale GATX 16,000 gallon tank cars that represent the basic 1949-era car modified for specialized commodities and service.

This powder blue GATX car is based on a Chicago Great Western tank car that carried lube oil.

ATSF/BNSF assigned this tank car fitted for fire-fighting service to the road's Montana Division.

Montana Rail Link's GATX tank car No. 10001 transported locomotive lube oil.

ATSF No. 98195 was designated to handle specialized solvents.

CGW's GATX tank car No. 266 had distinct railings at each end. All ROKA models in this report come with Kadee couplers and appropriate trucks with machined metal wheelsets.

Info: rokamodels.com

State Tool & Die is selling a highly-detailed HO scale model of an L&N bulkhead flatcar. The fully assembled and decorated car is a 3D-printed resin model with a laser-cut wood deck. It comes with Kadee couplers and roller-bearing trucks with metal wheelsets.
Info: www.statetoolanddie.com

Tangent Scale Models has released a group of 60′ 5880 cu. ft. double plug door auto parts boxcars. The HO scale models are accurate replicas of the prototype Thrall Car Manufacturing Inc. built in the

1960s. This release includes models decorated for Santa Fe, Canadian Pacific, Milwaukee Road, and Frisco.

The Santa Fe version represents a car repainted Indian Red in 1979 and given the *Super Shock Control A Smoother Ride* slogan. The Santa Fe car has Keystone end-of-car cushioning, and auxiliary crank arms at the top of the double plug doors.

The Canadian Pacific version of the 5880 boxcar has a galvanized Stanray roof, Ajax crossover platforms and Keystone end-of-car cushioning.

Tangent's Milwaukee Road version of the 5880 boxcar is based on a prototype repainted in 1979. Features include Freightmaster end-of-car cushioning, and auxiliary door cranks at the top of each plug door.

The Frisco model is decorated in the original yellow scheme including the *Ship it on the Frisco* slogan. Accurate prototype details include a galvanized roof, Freightmaster end-of-car cushioning, Stanray coupler centering device and an ACI label mounted on stand-off plates.

All the models in this release have individual door rods, door tracks, tack boards, rubber air hoses, Ajax brake equipment, Kadee couplers , and 100 ton Barber S-2 trucks with 36'' machined wheels and Timken roller bearing end caps.

Info: www.tangentscalemodels.com


R. Bale

GE ES44 Locomotive

General Electric introduced its GEVo series of modern diesel locomotives in 2002. The first two units were the ES44DC and ES44AC. The ES44C4 followed a few years later. The GEVo series was designed to replace earlier AC4400CW and Dash 9-44CW units, while complying with new emission standards imposed by the Environmental Protection Agency (EPA). The EPA established allowable emission levels, or tiers, based on a locomotive's date of manufacture. Tier 2 took effect in 2005 followed by Tier 3 in 2010. Although EPA Tier 4 standards went into effect in 2015, ES44s continue to be built. This is due to a complicated government formula that allows sharing and redistribution of emission credits between GE and the operating railroad. The external appearance of ES44 locomotives is similar to the AC4400CW with the most significant visual difference being the larger radiator wing structure on the back end of the locomotive. The thicker radiators and related equipment work to cool the exhaust, which reduces emissions. The ES44 has become the best-selling diesel locomotive of all time.

Walthers is booking reservations for a Mainline GE ES44AC Evolution Series (GEVO) diesel locomotive. The HO scale Mainline series model will be available in BNSF, CPKC, Norfolk Southern, Union Pacific, and four CSX heritage schemes – Baltimore & Ohio, Chesapeake & Ohio, Pere Marquette, and Chessie System.

Both ESU Sound/DCC and standard DC units will have a pre-installed 16 x 35mm rectangular speaker.

Realistic LED lighting effects include front ditch lights and constant directional headlights positioned per the prototype.

The injection molded bodies will have drilled grab iron starter points. Walthers offers a GE ES44 diesel detail kit (stock # 910-250) available as a separate purchase.

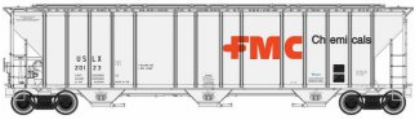
The Walthers Mainline series model has a diecast metal frame and the same five-pole skew-wound motor and all-wheel drive and electrical pickup system as WalthersProto series models.

Three truck styles -- high-adhesion, self-steering radial (nonworking), and A1A center idler axle – will be appropriate to the prototype road name. The ES44 will operate on 18″ radius curves, however, Walthers recommends 22″ or larger. Availability is scheduled for winter 2026.

Also scheduled for release in winter 2026 is a run of 30,145 gallon tank cars. Walthers HO scale Proto model is based on a 55′ prototype introduced by TrinityRail in the mid-2000s.

The model features see-through etched-metal walkways and end platforms, separate brake cylinder, brake pipe and rigging, detailed full-port bottom outlet valves, factory-installed grab irons, and modernized end rails.

Decorating schemes include CBTX-CIT Group, PPRX-Conoco Phillips, DOWX-Dow Chemical, SCMX-Shell Oil, JRTX-Jefferson, and TILX.



Walthers is quoting a spring 2026 release date for a new production run of 55′ 4780 cu. ft. triple bay covered hopper cars. The HO scale model adheres closely to the prototype built by Evans in the late 1970s. Walthers Proto series model features factory-installed grab irons, see-through etched-metal walkways and end platforms, and separate vibrator brackets on the hopper bays. The model rides on appropriate roller-bearing trucks with 36″ machined wheels.

Reporting marks on this release include UELX-ADM Milling, USLX-FMC, USLX-Armstrong, USLX-Greenwood, USLX-Aurora Co-op, USLX-Hampton Co-op, USLX-Clay Center Co-op, and USLX-Louis Dreyfus.

Walthers plans to release another production run of Greenville's 73′ 7,000 cu. ft. six bay wood chip hopper car. Greenville Steel Car Co. designed the 16′ 2″ tall monster in the 1970s specifically for hauling wood chips from saw mills to paper mills.

The wood chip hoppers will have 100-ton roller-bearing trucks with 36″ machined metal wheels. Road names on this release will be CSX, Norfolk Southern, LCS, Seaboard System, Meridian & Bigbee, and Southern Railway.

Walthers has scheduled a winter 2026 release date for a group of 53′ 3-unit articulated well cars. The HO scale Mainline series model is based on a prototype

introduced in 2012 to carry 20′, 40′, and 53′ containers in the well in both single or double stack arrangements.

The outer trucks are equipped with 33″ wheels while the inner trucks have 38'' wheels. Road names will be BNSF, SFLC, CH/GTW, and TTX.

Walthers is currently taking reservations for delivery this fall of 57' Trinity 4750 cu. ft. triple bay covered hopper cars. Spotting features of the 1990-era car are the clerestory-style roof, square cornered roof hatches, late Trinity-style jacking pads, and 18 outside ribs.

Road names will be AMEX, Soo Line, Rock Island, WCFX, and Cargill. Models in this release will have ASF 100-ton roller-bearing trucks with 36″ machined metal wheels. All Walthers models mentioned in this report will be equipped with ProtoMAX metal knuckle couplers.
Info: www.walthers.com

READING STRETCHED BOXCARS

Modelers who follow the anthracite railroads in the years leading up to 1976 formation of Conrail will be familiar with Reading Railroad's stretched boxcars. A fleet of about 150 50′ cars were created by cutting 40′ ACF-built boxcars apart and stretching them by ten feet. The middle of the roof received three diagonal panels in the gap created by the stretch. The rest of the roof is comprised of the unique ACF-style panels. Three classes received 8′ doors and one class received 10′ doors. The stretched cars were a highly recognizable part of the RDG fleet. They represent the bankrupt railroad's desperate grasp at extending the utility and earning opportunities for a significant block of boxcars. Pierre Oliver.

Yarmouth Model Works is selling an HO scale craftsman kit for a Reading 50′ stretched boxcar. The well-detailed prototypically accurate model consists of a one-piece pressure cast resin body and photo-etched details. Additional detail parts are from Moloco and Tichy. Correct decals are included plus a unique precut mask for the bold READING banner. Appropriate Kato trucks are included. Options include a choice of kits with 8′ or 10′ sliding doors.
Info: www.yarmouthmodelworks.com

N SCALE PRODUCT NEWS

Atlas has released a new production run of 42′ coil steel cars to its dealer network. The N scale model is based on a prototype

developed in the 1960s to haul coils of steel in a trough. Spotting features include a distinctive fishbelly underframe.

Road names available in this release are CSX, GE Railcar, Indiana Harbor Belt, Norfolk Southern, and Inland Steel. Check with a dealer for availability as the factory is sold out of some road names.
Info: www.atlasrr.com

Kato USA has released an N scale version of Amtrak's Pacific Surfliner . The SC-44 Charger model represents the Pacific Surfliner version of the Siemens Diesel-Electric locomotive, with a shortened nose section and a spoiler at the rear to match the height of bi-level Surfliner cars. The Surfliner serves the coastal communities in Southern California between San Diego and San Luis Obispo. It operates in push-pull service with an SC-44 on one end and a cab-coach on the other. Unique to Amtrak's Pacific Surfliner is a special blue and silver livery resembling its namesake of the Pacific Ocean.

In addition to the SC-44 locomotive, cars in this release include a cab-coach, coach, coach-café, and Pacific business class car. Features of the N scale models include directional LED headlights, illuminated number boards and see-through side vents. The locomotive is DCC friendly with space for a speaker available in the fuel tank. The bi-level cab coaches will have directional lighting with alternate illuminating head and tail lights with an on/off switch for mid-train operation.

Kato is offering the Pacific Surfliner equipment in a four-unit base set, a four-unit add on set, and an eight –unit set.
Info: www.katousa.com

New N scale models released this month by **Micro-Trains Line** include this 60′ Conrail boxcar with double plug doors. The model is based on a prototype with a rated capacity of 7100 cu. ft.

The prototype of this CSXT triple bay covered hopper was introduced in 1965.

This N scale 50′ Delaware & Hudson, ex-Reading, flatcar comes with a cable suspension load.

Completing our list of Micro-Trains models released in June is a 50′ GAEX steel boxcar with a Youngstown sliding door.
Info: Contact a dealer

NEW STRUCTURES & SCENIC SUPPLIES

Artitec is selling HO scale models of a Ford Model T tank truck and a 1930-31 Ford Model A. The Model A is available as a

Tudor sedan, a roadster and closed coupe. The fully assembled and painted models are composed of resin and etched metal details.

Info: www.artitecshop.com/en

BEST Trains has released an HO scale kit based on the old station at Rockingham Junction in Newmarket, NH. The structure is located where two Boston & Maine Railroad lines once crossed. The kit is made up of laser-cut wood, peel and stick shingles, injection molded windows and doors, and numerous small parts.

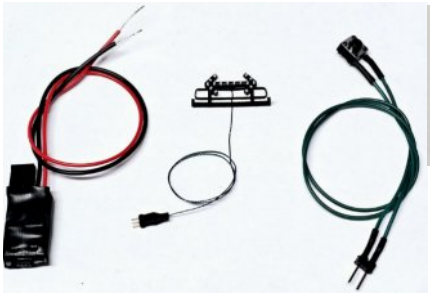
Dimensions, not including the platform, are 5.25″ x 5″. Painting and assembly are required. A separate kit for the freight house at Rockingham Junction is also available.

Info: www.besttrains.com

The **C&O Historical Society** is offering a 3D-printed Wooden Train Order Platform in HO and N scales. Used at C&O depots from the 1940s to the late 1970s, the train order platform was used to elevate the station agent level with the train for ease in passing train orders and other paperwork. Both the HO and N scale models are a three piece kit including the platform, a lampshade, and a short piece of wire to use as a gooseneck. It measures approximately 10′ x 5′ scale feet.

Info: chessieshop.com

ClassOneModelWorks has introduced a detailed HO scale kit for a Foster Wheeler feedwater heater. The ready to use model is based on equipment used in steam powered ships built in shipyards throughout North America. Painted components include the heater, two bottom wood supports, feet for the bottom of the frame, an A-frame style support for underneath the steam pressure chamber, two tie-down wires, and two shipping crates for supporting equipment. The depressed center flatcar in the illustration is available as a separate purchase.
Info: www.classonemodelworks.com



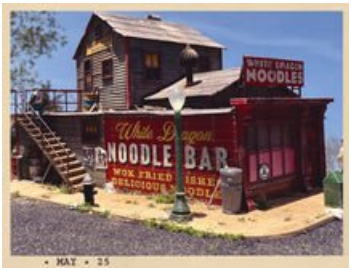
East Coast Circuits has introduced several new products recently, including an HO scale Headache Rack, available either as just two racks or as a single rack including the ECC Arrow Stick LED directional sign. Ready to be glued into a pickup or utility truck bed, they are designed for use with Atlas and River Point Station standard and utility vehicles. The Arrow Stick requires 9-12V DC or AC power input and is not polarity sensitive.

Also new from ECC are Standard and Deluxe LED equipped versions of the Atlas HO scale Ford F350 pickup truck in four police and fire command paint schemes.

The Standard lighted vehicles feature operating headlights and taillights, lightbar, grille lights, rear slick top (red) and dual front slick top.

The Deluxe lighted vehicles include the lights on the Standard version plus running board lights and the grille lights are bicolor. All the light features operate and require 9-12V DC power. Videos of the vehicles with the LEDs operating are available on the ECC website.

Info: eastcoastcircuits.com



Fos Scale Models has introduced the White Dragon Noodle Bar & Massage Parlor – a fully detailed HO scale craftsman-style kit. The kit includes 3D-printed parts, metal cast details, scale lumber, laser-cut details, injection molded plastic windows, color signs and assembly instructions. The model has an approximate footprint of 4″ x 6″. Assembly and painting are required.

Info: fosscalemodels.com

Burton House, a turn of the century stone residence with a clapboard upper story and a shake roof is available now from **Frenchman River Model Works.** The kit is made up of resin structure components and detail parts, laser-cut doors, windows and glazing

material, pewter smoke jack, aluminum flashing, and wood and styrene parts. Detailed color instructions are available on line. Both 1:87 and 1:48 versions of the craftsman-style kit are available. Assembly and painting are required.
Info: www.frenchmanriver.com

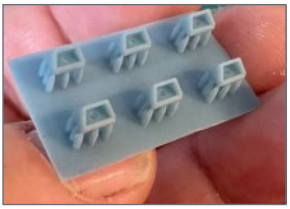
New in O scale from **Inter-Action Hobbies** is the Englewood Mobile Home kit. A representation of a 1960s 43′ mobile home, the kit measures 10.90″ x 3.66″ when finished, including the exterior stairs. The kit is assembled from laser-cut resin impregnated board and an MDF core, laser-cut entrance stairs, interior walls and roof antenna, clear window glazing, lawn chairs, flamingos, and a picnic table. 3D-printed details include a gas meter, cable and telephone boxes, two water spigots, and a hose hanger.

Two O scale detail kits are also available that can go with the Englewood or other O scale structures. The first is Samantha's Apartment Interior Details, which includes both laser-cut and 3D-printed details. The laser-cut details do require assembly. Included details are an armoire, two small side tables, a king sized bed, three kitchen counter chairs, two living room end tables, shower walls, a kitchen cabinet unit, a kitchen countertop with sink, stove, fridge, living room couch, console television, ironing board, bathroom sink, medicine

cabinet, toilet, and a shower base with shower head and knobs. 3D-printed clutter includes a pizza with a slice cut out, the cut out pizza slice, a ramen bowl, a bowl of apples, a cake, two croissants, a bag of coffee, two book stacks, a kettle, a frying pan, four plates and trays, a coffee maker, a telephone, and 12 random bottles.

The second detail kit is an O scale Deck & Chairs, which includes a laser-cut deck that measures 9.16″ x 1.97″, two laser-cut lawn chairs, and a laser-cut basswood picnic table.
Info: www.interactionhobbies.com

Several new items are available from **miniprints** including a 3D-printed "Dino Dig" that includes a T-Rex skeleton and a paleontologist figure.



Also new are a set of six outdoor lighting mounts. While the LED is not included, the hole in the back to run the wires through is.

A set of three hobo figures can help establish the era of your layout.

If you really want to establish that your layout is truly a freelance or fantasy railroad, how better to do that than with a set of two Dodo birds, extinct since the 1700s?

All miniprints figures are available in HO, S, and O scale, with some also available in N scale. They can be purchased unpainted or painted.
Info: miniprints.com

Monster Models has released an N scale kit for a brick Machine Shop/ Blacksmith Shop, based on a prototype on the Milwaukee Road in Sioux City, IA. Built in 1917, the fully restored building now serves as the Sioux City Railroad Museum. The craftsman-type kit includes 3D-engraved aged American Bond Brick sides and columns, basswood foundation and sills, laser-cut windows and doors with peel & stick backing, 3D-printed iron wall anchors, and peel & stick tar paper roofing. The model has a footprint of 6.125″ x 4.25″. It stands 2.18″ high. Assembly and painting are required.
Info: www.larkspurlaserart.com

NEW DECALS, SIGNS AND FINISHING PRODUCTS

HO scale water slide decals now available from **National Scale Car** include this Rutland 40′ 50-ton flatcar built in 1912 with a steel underframe. The decals are spaced to fit an Athearn or Red Caboose flatcar kit bashed into the Rutland car.

This lettering set will letter two Missouri Pacific or Missouri-Illinois 1932 ARA 40′ HO scale Sunshine, Atlas or Funaro & Camerlengo boxcars.

National Scale Car also has an accurate lettering set for NYC double-sheathed wood boxcars rebuilt from early box and auto cars. The set is specifically sized to decorate Sunshine or Yarmouth Model Works kits.
Info: www.nationalscalecar.com

BRIEFLY NOTED AT PRESS TIME ...

HO scale 52′ flatcars modified for wheel service are available now from **Bachmann** …

July 10, 2025 is the new deadline for ordering **Broadway Limited's** N scale Baldwin Sharknose diesel …

Intermountain is now booking reservations for HO scale EMD GP16 road switchers and a quadruple-bay cylindrical covered hopper car. The Canadian-style hopper will also be available in N scale …

Morning Sun Books has released a digital eBook version of Gene Green's Minneapolis & St. Louis in Color ...

ScaleTrains.com is now shipping N scale models of an AC4400CW diesel electric locomotive …

The HO scale 50′ SIECO bulkhead flatcars **Walthers** announced in January have arrived and shipped to dealers … ■

SELECTED EVENTS

June

Please submit your event information, including website, to model-railroad-hobbyist.com/contact/News_event_-product_announcement

Ongoing 2025

ONLINE, Zoom & YouTube, Wednesdays at 7pm Eastern. New Tracks Modeling Live Weekly
Info: newtracksmodeling.com
YouTube: www.youtube.com/channel/UCMA_VhPb5pjdkAYTdXLceJA

ONLINE, Facebook & YouTube, dates vary, see Facebook page. "NMRAx" organized by Gordy Robinson, Martyn Jenkins, Speed Muller, Jordan Kramer.
Info: www.facebook.com/groups/nmragroup

ONLINE, YouTube, every other Saturday. 4th Division, Pacific Northwest Region, NMRA hosts online layout tours and clinics.
Archive: www.youtube.com/c/4DPNRMovies

ONLINE, Zoom, Second Tuesdays, 8pm Eastern. "Off the Beaten Track" featuring Narrow Gauge layouts, clinics, and manufacturers.
Info groups.io/g/NNG

June – July 2025

ARIZONA, PRESCOTT, July 26, 2025. Beat the Heat Model Train Marketplace and Show. Embry-Riddle Aeronautical University, 3700 Willow Creek Road.
Info: camrrc.com/bth

ARKANSAS, BENTONVILLE, June 21, 2025. Northwest Arkansas Model Train Show, Benton County Fairgrounds, 7640 SW Regional Airport Blvd.
Info: nwatrainshow.com

CALIFORNIA, SACRAMENTO, June 20-21, 2025. National Model Train Show, part of the 40th National Garden Railway Convention. SAFE Credit Union Convention Center, 1401 J Street.
Info: www.ngrc2025.org

FLORIDA, DELAND, July 12, 2025. 89th Florida Rail Fair Model Train & Railroad Artifact Show & Sale. Tommy Lawrence Show Arena, Volusia County Fairgrounds, 3150 E New York Ave.
Info: www.gserr.com

FLORIDA, PINELLAS PARK, June 21, 2026/August 16, 2026. Regal Railways Model Train Show. Lopez Hall, 7177 58th Street North.
Info: regalrailways.com/upcoming-shows

FLORIDA, TALLAHASSEE, June 28-29, 2025. 34th annual Tallahassee Model Railroad Show and Sale. North Florida Fairgrounds, 441 Paul Russell Rd.
Info: www.facebook.com/events/631735199262142

FLORIDA, THE VILLAGES, July 14-16, 2025. Camp Villages Train Show, Savannah Regional Center, 1545 N Buena Vista Blvd.
Info: www.thevillagesmodeltrainclub.com

ILLINOIS, COLLINSVILLE (St. Louis, MO). July 24-26, 2025. St. Louis Railroad Prototype Modeler Meet. 1 Gateway Center Drive.
Info: stlrpm.com

KANSAS, OVERLAND PARK (Kansas City), June 25-29, 2025. 2025 National N Scale Convention. Sheraton Overland Park Hotel, 6100 College Boulevard.
Info: www.nationalnscaleconvention.com

KENTUCKY, LEXINGTON, July 12, 2025. 4th Annual Train Show, sponsored by the Bluegrass Railroad Club. Oleika Shriners, 326 Southland Dr.
Info: www.facebook.com/events/1080851297051600

LOUISIANA, BATON ROUGE, June 26-29, 2025. Blues Express 2025, NMRA Lone Star Regional Convention. Holiday Inn Baton Rouge South, 9990 Airline Way.
Info: bluesexpress2025.com

MASSACHUSSETTS, ORLEANS, Wednesday evenings, July & August 2025. Annual Summer Open House of the Nauset Model Railroad Club. 180 Rte 6A.
Info: www.facebook.com/p/Nauset-Model-Railroad-Club-100054369888560

MICHIGAN, NOVI, July 14-19, 2025. Station No. VI, 2025 NMRA National Convention. Sheraton Hotel, 21111 Haggerty Road.
Info: nmra2025.com

MISSOURI, KANSAS CITY REGION, July 12, 26, August 23, 2006. MO-KAN Garden Railroaders 2025 Garden Railroad Tour. Thirteen train gardens in the Kansas City metropolitan area.
Info: mokangardenrailroaders.org

OKLAHOMA, STILLWATER, July 11-12, 2025. Heartland Summer Toy Train Show. Payne County Fairgrounds Expo Center, 4518 Expo Circle E.
Info: www.ttos-soonerdiv.org

OREGON, CHILOQUIN, June 14-29, 2025. Train Mountain Triennial 2025. Train Mountain Railroad Park, 36941 South Chiloquin Road.
Info: trainmountain.org

PENNSYLVANIA, MOUNT UNION, July 18-20, 2025. Central Pennsylvania Shortlines RPM. Bricktown Museum, 300 W. Small St.
Info: rpm.pennsyrr.com

WISCONSIN, LA CROSSE, July 19, 2025. Rail Fair, presented by the non-profit 4000 Foundation, Ltd. 1130 Copeland Park Dr.
Info: www.4000foundation.org

Future 2025-26 by location

AUSTRALIA, QUEENSLAND, BRISBANE, August 22-24, 2025. Brisbane 2025, NMRA Australasian Regional Convention. Flight One, Qantas Drive, Archerfield.
Info: nmra.org.au/nmra-ar-convention-2025

AUSTRALIA, QUEENSLAND, TOOWOOMBA, September 13, 20, 27, 2025. 2025 Carnival of Trains Open House, sponsored by the Toowoomba Model Railway Club, Inc. Toowoomba Showgrounds, Glenvale Road.
Info: www.facebook.com/toowoombamodelrailwayclub

CANADA, BRITISH COLUMBIA, SIDNEY, September 21, 2025. 33rd Annual Victoria Model Train Show. Mary Winspear Centre, 2243 Beacon Avenue.
Info: victoriatrainshow@gmail.com

CANADA, ONTARIO, BURLINGTON, October 17-19, 2025. Real Rails 2025 Convention, sponsored by the Canadian Pacific Historical Association. Holiday Inn and Candle Wood Suites, 3060 South Service Road.
Info: www.cptracks.ca/realrails2025.html

ALABAMA, GADSDEN, September 20, 2025. Coosa Valley Model Railroad Association 2nd Annual Fall Train Show. Mary G Hardin Center for Cultural Arts, 501 Broad St.
Info: www.facebook.com/coosavalleymodelrailroad

ARKANSAS, CONWAY, August 23-24, 2025. Rail & Sprue Train and Hobby Show, Conway Expo & Event Centers, 2505 E. Oak St.
Info: railandsprue@aol.com

CALIFORNIA, IRVINE, September 3-6, 2025. PSR 2025 Convention – Pacific Southwest Express. Irvine Hilton – John Wayne Airport, 18800 Macarthur Blvd.
Info: www.pacificswexpress.org

COLORADO, ESTES PARK, September 20, 2025. Rails in the Rockies XXVIII, Estes Park Events Complex, 1125 Rooftop Way.
Info: railsintherockies.org

COLORADO, GREELEY, September 27-28, 2025. Colorado Rail Proto Meet, in association with the Colorado Model Railroad Museum, featuring the HomeShops Freelance Forum and the Narrow Gauge Gathering. Island Grove Event Center, 421 N 15th Ave.
Info: corpm.org

FLORIDA, OCALA, October 9-11, 2025. Sunshine Region 2025 Annual Convention. Ocala Hilton, 3600 Southwest 36th Ave.
Info: www.nmrasunshineregion.org/2025-annual-convention

FLORIDA, THE VILLAGES, September 20-21, 2025. Summer Expo Model Train Sale & Show, Savanah Center, 1545 N Buena Vista Blvd.
Info: www.thevillagesmodeltrainclub.com

GEORGIA, DULUTH (Atlanta), August 23, 2025. 67th Atlanta Model Train Show. Gas South Convention Center, 6400 Sugarloaf Parkway.
Info: www.gserr.com

INDIANA, DANVILLE, November 22, 2025. CID-NMRA Danville Train Show. Hendricks County Fairgrounds, 1900 E. Main Street.
Info: www.cidnmra.org

INDIANA, INDIANAPOLIS, October 4, 2025. Indianapolis Train Show @ Garfield Park. Garfield Park Burello Family Center, 2345 Pagoda Dr.
Info: www.naptownrr.org/shows

MARYLAND, LINTHICUM (Baltimore), September 11-14, 2025. Mid-Atlantic Railroad Prototype Modelers Meet. DoubleTree by Hilton Hotel Baltimore-BWI Airport.
Info: www.marpm.org

MASSACHUSSETTS, ORLEANS, Wednesday evenings, July & August 2025. Annual Summer Open House of the Nauset Model Railroad Club. 180 Rte 6A.
Info: www.nausetmodelrrclub.com

MASSACHUSSETTS, WEST SPRINGFIELD, January 24-25, 2026. Amherst Railway Society Railroad Hobby Show. Better Living Center, Young, Stroh, and Mallary Buildings at The Eastern States Exposition Fairgrounds – Home of the Big E. 1305 Memorial Avenue.
Info: www.railroadhobbyshow.com/index.php

MISSOURI, SPRINGFIELD, September 19-20, 2025. Ozarks Model Railroad Association 2025 Train Show. Ozark Empire Fairgrounds, 3001 Grant Ave.
Info: www.facebook.com/events/1337256877719034

NEW HAMPSHIRE, CONCORD, August 17, 2025. Concord Model Railroad Club 39th Annual Show. Everett Arena, Loudon Rd.
Info: www.trainweb.org/cmrc/index.html

NEW HAMPSHIRE, CONCORD, September 11-14, 2025. Concord Flyer - North Eastern Region NMRA Annual Convention, hosted by the Seacoast Division NMRA. Grappone Conference Center, 70 Constitution Avenue.
Info: conventions.nernmra.org/home/home-2025

NEW YORK, BATAVIA, September 7, 2025. The Great Batavia Train Show. Genesee Community College, 1 College Road.
Info: gsme.org

NEW YORK, HEMLOCK, September 20-21, 2025. 5th Annual Hemlock Train Show. Hemlock Fairgrounds, AG Expo Building, 7370 Water St.
Info: www.fctt-hirailers.com

NEW YORK, SYRACUSE, November 1-2, 2025. 50th Great New York State Model Train Fair, sponsored by the CNY Chapter, National Railway Historical Society. NYS Fair Exposition Center, 581 State Fair Blvd.
Info: www.modeltrainfair.com

OHIO, CAMBRIDGE, October 26, 2025. Seventh Annual Buckeye Division (Division 6, MCR) Train Show. Pritchard Laughlin Center, 7033 Glenn Hwy.
Info: div6-mcr-nmra.org/trainshow.html

OHIO, MARION, August 9, 2025. Summerail. Marion Palace Theater, 276 W Center St.
Info: www.summerail.com

OHIO, MIDDLEBURG HEIGHTS (Berea), October 4-5, 2025. 51st Annual Great Berea Train Show, hosted by the North Coast Division, Mid-Central Region, NMRA. Cuyahoga County Fairgrounds, 19201 Bagley Rd.
Info: thegreatbereatrainshow.org

OHIO, VAN WERT, August 16-17 2025. 22nd Annual Van Wert Railroad Heritage Weekend Model Railroad Show & Swap. Van Wert County Fairgrounds, 1055 S Washington St.
Info: www.vwrrhw.com

OREGON, PORTLAND, October 25, 2025. 6th Bridgetown Railroad Prototype Modelers Meet. Holiday Inn Airport – Portland (I-205), 8439 NE Columbia Blvd.
Info: www.facebook.com/groups/2001136043323501

PENNSYLVANIA, EASTON, October 5, 2025. 47th Annual Lehigh Valley Regional Train Show & Expo. Charles Chrin Community Center 4100 Green Pond Road.
Info: www.lehighlines.org/chrin-flyer.html

PENNSYLVANIA, KING OF PRUSSIA, October 16-19, 2025. Philly Express, 2025 NMRA/MER Convention. Crowne Plaza Hotel, 260 Mall Blvd.
Info: phillyexpress.org

TENNESSEE, GATLINBURG, September 17-20, 2025. Smoky Mountain Rails Convention, sponsored by the Southeastern Region of the NMRA. Glenstone Lodge, 504 Airport Rd.
Info: 2025serconvention.org

TEXAS, AUSTIN, August 23-24, 2025. Austin 2025 Train Show. Palmer Events Center, 900 Barton Springs Rd.
Info: austintrainshow.org

TEXAS, PEARLAND (Houston), November 15-16, 2025. 2025 Houston Area Model Train Show. Knights of Columbus Hall, 2320 Hatfield Rd.
Info: houstonttrak.org

WASHINGTON, BATTLE GROUND, September 27, 2025. Southwest Washington Model Railroaders Great Train Swap Meet. Battle Ground High School, 250 N Parkway.
Info: larry.sprnkel@gmail.com

WASHINGTON, LYNDEN, October 4-5, 2025. 40th Anniversary Lynden Lions Club Model Train & Toy Show. Northwest Washington Fairgrounds, Henry Jansen Agricultural Building, 1775 Front St.
Info: lyndentrainshow.com

WISCONSIN, MILWAUKEE, November 1-2, 2025. Trainfest – America's Largest Operating Model Railroad Show. Baird Center, 400 W Wisconsin Ave.
Info: www.trainfest.com/trainfest.html ■

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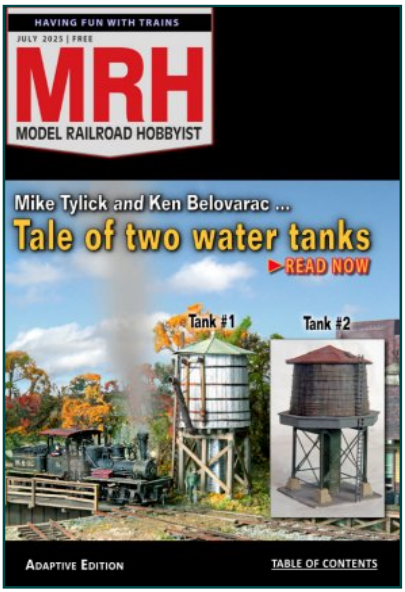
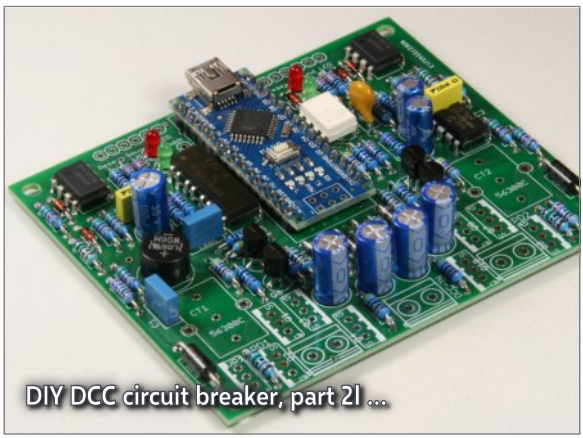
Clickable "other" index

Coming next month in MRH ...





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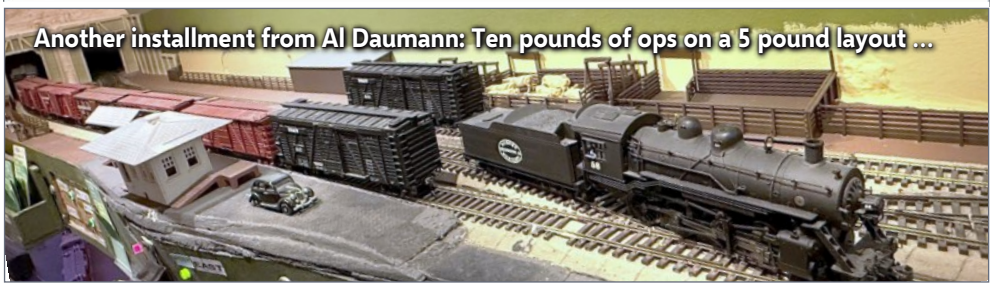
... all the MRH articles and ads, PLUS:



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