HAVING FUN WITH TRAINS

MAY 2026 | FREE

MRH

MODEL RAILROAD HOBBYIST

ALSO:

- Troubleshooting ghost shorts: 2
- Make enginehouse doors that swing
- Build a glide-up room gate
- Ken's post-fire layout assessment

... and more inside!

2026 SCENIC CITY EXPRESS CHATTANOOGA NMRA NATIONAL CONVENTION

Pelle Søeborg's ...

Daneburg Subdivision update

▶READ NOW

This is the screen-adaptive PDF version of MRH magazine

This PDF will try to fill the screen. If the screen is wide enough, it displays two facing pages (emulating the old landscape format), otherwise it displays one page in portrait.

On mobile devices, if you change your device orientation, the PDF adapts to fill the screen with either a portrait or a landscape view as appropriate.

WORKS BEST WITH ...

- Windows: open with Acrobat or Firefox
- Mac: open with Preview, Acrobat, or Firefox
- Linux: open with Acrobat or Firefox
- Apple iPad or iPhone: open with SideBooks app (free)
- Android tablet or phone - open with SideBooks app (free)

If you're not seeing the PDF adapt, then your PDF viewer lacks the adaptive display feature. Please use one of the recommended free PDF viewing apps listed above to get the screen adaptive behavior. Or try the Wide Edition instead.

INDEX

STAFF

HAVING FUN WITH TRAINS
MRH
MODEL RAILROAD HOBBYIST

Model Railroad Hobbyist | May 2026 | #195

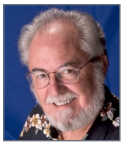
ISSN 2152-7423
1.1 May 16

Editorial Staff


Joe D. Fugate, Publisher and Editor


James Regier, Assistant Editor


Patty Fugate, Pasteup and Layout


Richard Bale, News and events

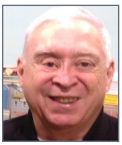

Jeff Shultz, News and events, Tech Assistant


Mike Dodd, Copy Editing

Published for the glory of God. What's this?

Advertising


Les Halmos, Account Manager


Jean-François Delisle, Marketing Assistant

Thom Driggers, Marketing Associate

Regular contributors

Eric Hansmann, Contributing editor
Jim Six, Limited Modeler column (RE)
Ken Patterson, Reporter-at-Large

Rotating Columnists (RE)

Greg Baker, Getting Real column
Al Daumann, Getting Real column
Jeff Johnston, Getting Real column
Mike Rose, Getting Real column
Jim Providenza, Getting Real column
Tony Thompson, Getting Real column

MRH SPONSORS

Model Railroad Hobbyist | May 2026

A - M

railroadhobbyshow.com

www.atlasrr.com

bachmanntrains.com

berretthill.com/trains

blairline.com

deluxematerials.com.uk

www.digitrax.com

esu.eu/en

handlaidtrack.com

iascaled.com

store.mrhmag.com

www.modelrectifier.com

handlaidtrack.com/mt-albert-scale-lumber

Vendors: Get your clickable logo on these pages ...

MRH Sponsors | 2

N - Z

Looking for something? Check the MRH Marketplace!

Take me there!

REGISTER *(free)*

INDEX

TABLE OF CONTENTS

Table of Contents | MRH

May 2026

PUBLISHER'S MUSINGS

Model Railroad Hobbyist | May 2026

JOE FUGATE ON THE REAL REASON WHY OUR MODEL RAILROAD PROJECTS SIT UNFINISHED ...

VIEW READER COMMENTS

YOU KNOW THE FEELING: A DECODER STILL IN ITS PACKAGING, ROADBED PREPPED BUT NOT BALLASTED, WIRING YOU'VE BEEN AVOIDING.

Maybe it's been weeks. Maybe months. There's a reason for the procrastination – and it's not what you think.

The time management myth

We've all heard it – we need better time management. Buy a planner, set a timer, block out hobby hours.

But you probably have time. You spend evenings browsing hobby topics, reorganizing your workbench, shopping for tools instead of actually building. Retired modelers with "unlimited free time" still leave projects unfinished. The problem isn't your calendar.

What procrastination really is

Dr. Tim Pychyl, a psychologist who has spent decades studying procrastination, puts it bluntly: "Procrastination is an emotion regulation problem, not a time management problem."

When we avoid working on our projects, we're not failing to manage time – we're managing emotions. We're avoiding the uncomfortable feelings that tasks trigger. Procrastination is a mood repair strategy that works brilliantly in the moment but backfires long-term.

This comes from research into what psychologists call emotion regulation – basically, our ability to manage and respond to our own feelings.

Here's the thing: when you face a task that makes you feel incompetent, anxious, or overwhelmed, your brain makes you an offer. Avoid the task now, feel better immediately.

What a great deal! So we take it. Every single time.

For us as model railroaders, this plays out in specific, recognizable ways across every type of project.

You don't start ballasting because it's tedious and boring. You avoid installing DCC decoders because the learning curve feels overwhelming, and the thought of frying an expensive locomotive is paralyzing. You delay weathering that beautiful model because what if you ruin it?

These aren't time management failures. They're emotion regulation failures – boredom avoidance, fear of incompetence, perfectionism. And they hit hardest for the modelers who care most about their work.

The future self trap

Here's another way we sabotage ourselves: we treat our future self like a different person.

You look at your stalled projects and think, "Future Me will be more motivated. Future Me will have more energy. Future Me

BACHMANN®

HO SCALE

Celebrate AMERICA

with the American Freedom Train from Bachmann

There's nothing quite like a train to bring a nation together. Inspired by the 1947 Freedom Train, which traveled the country following World War II, the bicentennial American Freedom Train would visit all 48 contiguous United States between 1975 and 1976 as a traveling display of Americana. The tour would make stops in 140 communities, with Southern Pacific™ GS-4 locomotive #4449 leading for much of the journey. This limited edition set commemorates the 50th anniversary of this momentous trip as America now celebrates its semiquincentennial. Take the red, white, and blue on tour and celebrate 250 years of America with the Bachmann American Freedom Train.

This Complete, Ready-to-Run HO Scale Electric Train Set Includes:

- GS-4 4-8-4 steam locomotive with smoke and operating headlight
- Two showcase cars with lighted interiors and simulated displays
- Observation car with lighted interior
- Body-mounted *E-Z Mate*® couplers
- 81" x 45" oval of snap-fit *E-Z Track*®
- Power pack and speed controller
- Illustrated instruction manual
- Collector's card with individual production number for this limited edition set (1000 produced)

Showcase cars feature authentic simulated displays with real printed information panels.

AMERICAN FREEDOM TRAIN
Item No. 00789

Add to Your Freedom Train Consist

Four additional exhibit cars are available to add to your set, featuring authentic, lighted display panels.

Click to learn more

UNITED STATES 250 1776 - 2026

AMERICAN FREEDOM TRAIN #101
(1776-1796; illustration shown)
Item No. 19901

AMERICAN FREEDOM TRAIN #102
(1796-1816; illustration shown)
Item No. 19902

AMERICAN FREEDOM TRAIN #103
(1816-1836; illustration shown)
Item No. 19903

AMERICAN FREEDOM TRAIN #104
(1836-1856; illustration shown)
Item No. 19904

Order this limited edition set from your retailer now
Shipping Summer 2026

YouTube

BACHMANN INDUSTRIES, INC.
1400 East Erie Avenue; Philadelphia, PA 19124 USA
www.bachmanntrains.com
Bachmann Trains is a registered trademark of Bachmann Industries, Inc.
Click for more information.

BACHMANN QUALITY SINCE 1845

will feel more confident." So you wait. You convince yourself you're not procrastinating – you're just waiting for the right version of yourself to show up. The braver version. The more talented version.

Except that *Future You* never arrives. Because Future You is just *Present You* with a different date on the calendar, facing the exact same emotional barriers.

This is what researchers call temporal discounting – we systematically overestimate how different we'll feel in the future. Model railroaders seem especially vulnerable to this.

We tell ourselves we'll install that DCC decoder "when work settles down and I'm less stressed." We'll tackle ballasting "when I have more energy."

We'll try that wiring project "when I finally must get more trains running." We'll detail that rolling stock "after I take a class and improve my skills."

We'll fix that bad section of track "when I'm in the right headspace." We'll weather that locomotive "once I've practiced more."

All of these are ways of pushing the emotional discomfort onto a future version of ourselves who we imagine will be braver, more skilled, or more motivated. But that person doesn't exist.

There's only you, right now, with the same frustrations and doubts you'll have tomorrow.

The emotions you're actually avoiding

Here's something fascinating from the research on affective forecasting – the predictions we make about our future emotional states: we're terrible at it. Specifically, we consistently overestimate how bad we'll feel when doing difficult tasks.

You dread ballasting – you've got the roadbed prepped and the glue mixed, but you imagine it will be tedious, messy, and you'll somehow glue the turnout points solid. You put it off. But once you actually do a few feet, you find it's calming, meditative even, and far more rewarding than you'd imagined.

The biggest emotional barrier isn't in the work – it's in the *gap between not-working and working.* That transition moment is where all the hesitation lives. Once you're actually doing the thing, the emotions you were avoiding often don't materialize.

Strategies that actually work

If procrastination is about emotion regulation, the solutions must target emotions, not calendars. Here are five strategies:

First, name the specific emotion. Not "I don't feel like it" but the actual feeling – fear? Overwhelm? Perfectionism? Instead of "I'm avoiding ballasting," name it: "I'm avoiding it because I fear ruining turnout points." You can't regulate an emotion you haven't named.

Second, design tiny, safe starts. Skip "I'll work two hours." Commit only to exploring: "I'll mix ballast and test it on a few inches of track in the back." Low stakes lets you discover the actual work is better than the dread.

Third, separate judgment from doing. Permission to do bad work removes perfectionism's grip. "I'm weathering this model terribly, and that's fine. It's called *learning.*"

Fourth, make a big deal about showing up. Not "finish all projects by month's end" – instead: "I'll share a photo every Sunday of what I

worked on, good or terrible." Accountability for showing up breaks shame spirals.

Fifth, listen to persistent avoidance. Sometimes it signals misalignment – you're pursuing a project because you "should," not because you want it. That's not failure. That's understanding yourself better, and we can all use that.

The compassion reframe

Here's what has really helped me: if you're procrastinating on your projects, it's not because you're lazy or undisciplined. The modelers I've watched struggle most with procrastination aren't the casual hobbyists who don't care.

They're the ones with the highest standards and the deepest care for their work – the passionate ones who feel that gap between their vision and their ability most acutely.

Procrastination isn't a character flaw. It's a signal that something emotionally or structurally isn't working. Your psyche is trying to protect you from feelings of inadequacy or failure. But here's the tragedy: in trying to protect you, it's protecting you right out of actually making progress in your hobby.

I find when I reframe procrastination this way – as a well-intentioned but misguided emotional protection strategy – I can shift from self-blame to problem-solving. We're not broken. We're not lazy. We're managing tricky feelings, and we can learn to manage them better.

The project that waits for you

Your projects are waiting. Not for some better version of you that's braver or more talented or more inspired. Just for you,

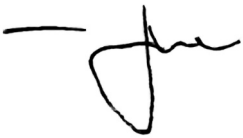
right now, willing to take a few minutes to "explore the task a bit."

That's all it takes. In fact, that's all it's ever taken.

Remember to take the reader survey

If you haven't yet taken our reader survey, please take the time to do so. We rely on this semi-annual survey to help us know what you want to see us cover. It will only take about 15 minutes of your time and if you give us your email, we will enter you into a free drawing for some nice prizes.

Just click the ad below to take the survey! ☑



Last issue likes

Most liked articles in **April 2026 issue** of *MRH* are:

1st Willie Clonts' Soddy Daisy Southern
2nd Electrical Impulses: Debugging problem shorts: 1
3rd Make the layout room inviting

Most liked articles in **April 2026 issue** of *Running Extra* ...

1st Siskiyou Line 2: The railroad that grows - part 1
2nd Limited Modeler: Building the Ballville/Fremont layout
3rd Publisher's Welcome: Easier small part manipulation

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

Forum MRH mrhmag.com THIS MONTH

Model Railroad Hobbyist | May 2026

Compiled by JOE FUGATE

Industries for small layouts

VIEW READER COMMENTS

MRH forum member **ArborRails** asked the forum members to post their ideas on good industries to model on small switching layouts. He led out with several ideas of his own to kick things off.

The thread has become a wealth of knowledge on a plethora of great industries to model on a small layout. Lots of photos, types of loads in and out, and operational details galore in this one forum discussion.

To see all the examples that have been posted, visit the thread!

View the full thread on the MRH website

▶ *MRH'S* MONTHLY GREAT MODELER POSTS

1. *MRH* forum member **hbgatsf** (Rick B.) asked for ideas on how to make an attractive fascia treatment. scene. Member **Edmund** posted this photo.

Getting a good fascia look

MRH forum member **hbgatsf** (Rick B.) kicked off a thread looking for examples of how to get a good looking fascia. Rick said:

"If I had gotten around to installing fascia ten or fifteen years ago, I would have figured out how to install it so that seams and fasteners were not visible. Over the past few years I've adopted the strategy of making things easier (less time consuming) so I am leaning towards not worrying about that and using countersink washers and just butt fitting the edges of 1/8" hardboard.

I have very little drywall experience and therefore feel trying for the smooth look is more than I want to tackle. Do you have any regrets on the method you chose?"

Visit the thread for many excellent ideas on getting a nice fascia.

View the full thread on the MRH website

2. *MRH* forum member **sanchomurphy** (Sean M.) asked for thoughts on upgrading classic model ore cars. You can see his before and after results here.

Upgrading MDC / Roundhouse ore cars

MRH forum member **sanchomurphy** (Sean M.) asked forum membes about upgrading classic model ore cars:

"Does anybody have good articles or ideas on how to upgrade an MDC/Roundhouse ore car, especially from a detail and proportion standpoint?"

A number of forum members posted the high gain changes they would make, most notably thinner stirrup steps along with thinner ladder rungs and crossbeams. Some great insights on coupler upgrade options also came out in the discussion, with several neat photos of upgraded cars posted in the thread.

Read the full thread to see all the great modeling ideas and examples presented.

View the full thread on the *MRH* website

Recent photo fun thread

These images posted on recent *MRH* forum Photo Fun threads illustrate that look so real you think they're the prototype instead of a model.

View list of recent Photo Fun threads

3, 4. MRH author Neil Schofield (**CP Rail Vermont**) posted these two photos with the caption: "Four D&H Alcos work hard coming and going as they struggle up Richmondville Hill in New York westbound."

Frankly, we did a double-take at first with these two photos. Neil's modeling and photography chops are second to none, as these photos testify.

Yet the modeling methods are not that difficult: put a photo backdrop behind a narrow shelf, add a line of trees in front to hide the seam, then nicely ballast and weather the track. Sprinkle in some simple static grass and lineside details to top it off. Superb!

Model Railroad Hobbyist | May 2026

Ops with a track planning mindset ...

So you've found an op session and shown up. Great!

Now here's the hard part: don't just move cars around. Most operators treat a session like a fun evening of railroading – which it is – but they miss the layout design clinic happening right in front of them.

Your job isn't just to run trains or to spot cars. It's to watch what the track is actually doing.

Here's what will change how you see every layout: think of track as having specific jobs. The mainline is a highway – it moves trains efficiently from point A to point B.

A siding is a pull-off lane – it gets you out of the way so faster traffic can pass. A spur is a delivery driveway – it's where the actual work happens, where cars get spotted at industries. And a switching lead is maneuvering room – it's where you assemble moves without fouling the main.

Once you see track this way, operation makes sense. You'll notice why that industry spur is hard to switch – there's no lead, so you're doing all your work while blocking the main.

You'll see why the dispatcher keeps routing trains around that one siding – it's too short for modern consists. You'll understand why that switching district works so smoothly – generous leads let you build moves without tying up through traffic.

Now watch the constraints. Which sidings get used constantly? Which ones sit empty? Where do bottlenecks form?

Start asking harder questions. How many individual moves does an operator need to make to spot one car at that industry? Count them. Watch a switching move from start to finish – how many times does the train have to occupy or cross the main line to complete the work? Once? Three times? Five?

Pay attention to timing and rhythm. How long does it actually take to work each industry – not the switching moves themselves, but the whole operation from arrival to departure?

1. I always enjoy being a guest operator at some new layout.

More importantly, where does the crew stand around with nothing to do while a train is positioned or a car is being uncoupled?

Those idle moments suggest the layout has a constraint that forces downtime. Watch for it: a crew waiting for a train to clear a crossing, an operator holding while another train finishes a move, someone standing trackside with their hands in their pockets. That could indicate a track arrangement weakness.

What clever workarounds does the crew use when space runs out? This is design thinking in real time. Every layout has limitations, and watching how operators work within them – or fight against them – teaches you what matters.

Take notes. Sketch track arrangements that work well. Document what frustrates you. Note what makes switching feel smooth versus awkward.

You're not just operating anymore. You're learning track design. And that hands-on education will transform how you design your own layout. ☑

WHAT'S NEAT column

Model Railroad Hobbyist | May 2026

KEN PATTERSON COVERS THIS MONTH:

VIEW READER COMMENTS

- AFTER THE FIRE, TOURING THE BASEMENT
- WHAT'S NEXT FOR THE MODEL RAILROAD IN THE BASEMENT
- WIN A BACHMANN DREYFUSS HUDSON

click to play video

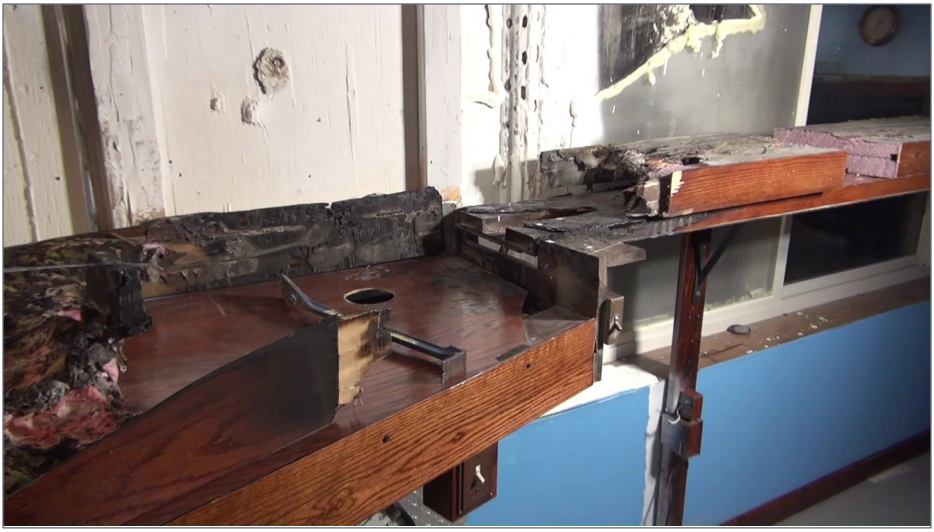
PHOTOS AND VIDEO OF SUPERB MODELS

Ken takes us on a tour of the post-fire basement, pointing out some of the modules he built for "What's Neat" videos. Vowing to build again, he explains his design philosophy, why it is different from many other model railroaders, and his plans for his next layout. Bachmann wants to give away a Dreyfuss Hudson to one of the fans of "What's Neat" – and entering is simple.

After the fire, touring the basement

1. As has been reported elsewhere, Ken Patterson's basement caught fire on December 13, 2025, when a locomotive shorted on a turnout while Ken was out of the room for several minutes. Thanks to video cameras he had installed several days earlier, the entire event was recorded. Fire video link: youtu.be/sz81yMzKDCg?si=9OH6elatZSc9UnQJ

VIEW READER COMMENTS



2. The Kimswick module, with the bridge, and the module he'd built over the last five episodes of "What's Neat" were total losses, and the rest of the basement and much of the house was damaged by the fire and smoke.

3. Ken discovered that the expanded polystyrene foam many of us use on our layouts burns with a dense black smoke that carries stringy "spiderwebs" of plastic everywhere, as can be seen on these F units. He does not plan on using it on his next layout.

4. While the modules may be getting scrapped, many of the structures and scenery items on them will survive to be used in a future project, either the next layout or perhaps a photo diorama. All the components of the bridge, the structures, and the tugboats and barges are easily removed from this section, which is located on the other side of the door from the Kimswick module that burned.

VIEW READER COMMENTS

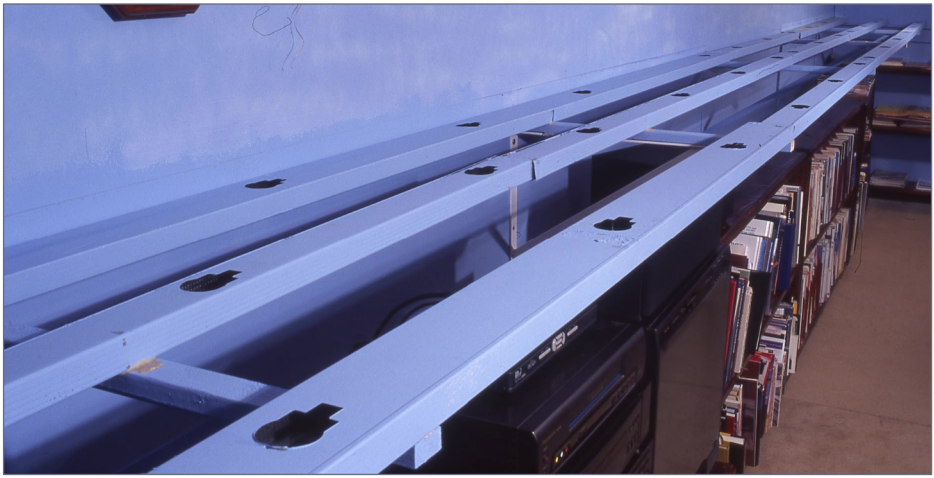
What's Next for the model railroad in the basement

5. Ken is, first and foremost, a railfan type of hobbyist. He didn't design his layout for operations, he designed it to contain photogenic scenes and an interesting run-by experience. All the sections of his layout could also be taken out into the backyard for photography. These interests will inform the design of his next layout in the basement as well.

6. One thing Ken is planning for his next layout is to pull it away from the walls, with aisles down both sides on several portions. This section will have the double-track mainline running down the middle of the room aligned roughly with his hand, and a narrow holding yard along the outside wall to the right. The yard will be only 16 inches wide.

7. Ken has accumulated many structures to use in photos over the years, and he's anticipating using them in a city scene on his layout, inspired by Vic Smith's City's Edge layout. Vic and the City's Edge layout were featured in the July 2022 "What's Neat" episode: youtu.be/QaEqtbBFZUk?si=gy3rYuu9B8VdBj_f. Like the rest of the new layout, Ken wants to pull it away from the wall. He is using a photography cart – the framework he transports layout segments on – to see what the layout might look like where the aisle is now.

8. The folks at Lombard Hobbies heard that Ken was planning to build a city, so they sent him a kit that will build into this model of the Lombard Hobbies store near Chicago.
Info: lombardhobby.com



9. Most of the layout rests on plywood supported by metal-stud benchwork, which will all need to change for the new layout.

10. The table will be taken out, and this is where the workshop will expand. The yard on the right may move to the same area as an extension of the yard on the outside wall, as well as where the mainline merges into the yard. Ken figures that, with all the work needed, and the inevitable changes of his mind that will take place, he's looking forward to at least a year of work that he'll be able to turn into videos.

Win a Bachmann Dreyfuss Hudson

11. Ken recently photographed a new Bachmann New York Central Dreyfuss Hudson with several 20th Century Limited passenger cars behind it. Bachmann has decided to run a drawing for viewers of "What's Neat," with an HO scale Dreyfuss Hudson locomotive (not Ken's, he asked) as the prize.

Please be sure to rate the articles so we can bring you more great content!

12. Entering the drawing is easy – simply email a photo of any of your Bachmann locomotives on your layout to info@bachmanntrains.com and the winner will be chosen by random drawing from the submissions. One entry per person, and the locomotive must be a Bachmann product. Ken has added two rules – no AI and no digital photo tweaking. The contest ends on June 15th, 2026, with the winner being announced in the July 2026 *MRH's* What's Neat.
Info: shop.bachmanntrains.com

To see the complete video of damage caused by the fire, Ken's current version of his future plans, the details of the Bachmann locomotive drawing, and Ken walking through his history as a model railroad photographer, click on the video link at the beginning of the article. ☑

Electrical impulses:
Debugging problem shorts Part 2

Electrical Impulses

Editor's note: This article expands on Dick Bronson's November 2013 *MRH* article on the clamp ammeter method for DCC short detection.

VIEW READER COMMENTS

Model Railroad Hobbyist | May 2026

JOE FUGATE SHOWS HOW TO FOLLOW THE CURRENT TRAIL WITH A CLAMP AMMETER ...

YOU'RE RUNNING YOUR PRIZE KATO SD40-2 THROUGH THE INDUSTRIAL district – the same route you've run a hundred times before.

The locomotive eases through the approach to the last turnout, and just as the front truck enters the frog... *click!*

The booster shuts down. Everything goes dark.

You reset the system, back the locomotive up, and try again. Same spot. *Click!* Shutdown.

You try a third time, creeping forward slowly, watching carefully. The instant the front wheels touch that frog – *click!* – there it goes again.

This short isn't hiding from you.

Unlike those maddening ghost shorts from Part 1 (random gremlins that appear without warning and vanish the moment you start investigating), this fault is *reproducible.* You can trigger it on demand. Same locomotive, same turnout, same shutdown – every single time.

And that changes everything.

A BETTER WAY TO HUNT SHORTS

When Dick Bronson encountered faults like this on his layout, he discovered something useful: instead of disconnecting track sections one by one as with divide-and-conquer in Part 1, you can follow the current *directly* to the problem feeder using a clamp ammeter.

No wire removal, no systematic elimination. Just follow the electrical trail straight to the source.

Total troubleshooting time? *Minutes instead of hours.*

THE RIGHT TOOL FOR THE RIGHT JOB

Here's the fundamental choice:

In Part 1, we explored *divide-and-conquer* – that systematic approach where you isolate sections one by one, perfect for those random, non-reproducible faults that won't cooperate during testing.

- But what if the fault *is* reproducible and you can trigger it reliably? The *ammeter method* is dramatically faster.

Instead of disconnecting feeders one-by-one, you follow the current directly to the problem feeder.

Key advantages:

- You'll troubleshoot in minutes
- You won't need to remove any wires
- You'll get real-time detection that works even on intermittent faults

Both methods work beautifully. The question isn't which one is "better" – it's *which one fits your situation?*

Choose divide-and-conquer when:

- The fault is random and non-reproducible
- You can't trigger the short on demand
- It appears intermittently
- You don't have an ammeter available

That methodical approach will get you there.

But reach for the ammeter method when:

1. A typical inexpensive clamp meter kit. This one is available from Amazon for about $20. We will use a meter like this to see if we can detect the DCC current flowing in the layout wiring.

VIEW READER COMMENTS

- The fault is reproducible – when you can trigger it reliably
- The short stays active during testing
- You have multiple feeder pairs and want fast results
- You want to catch intermittent faults in real-time

Let's dive into how the ammeter method works.

THE THREE-COMPONENT SYSTEM

Here's what makes this method so elegant – you only need three simple pieces:

- A clamp-on AC ammeter ($20-$40).
- A couple of automotive taillight lamps (#1156 bulbs, ~$3-$5 each).
- A DPDT switch ($5-$8).

Together, they create a powerful troubleshooting system.

Let me walk you through each piece and show why this combination works so beautifully.

Component 1: The clamp-on AC ammeter

Okay, you're standing at your layout with a short circuit somewhere in your trackwork. Current is flowing from the booster, through the track bus, down one specific feeder pair, through that short, and back to the booster. The clamp ammeter lets you follow that current path like breadcrumbs leading straight to the fault.

Here's the beauty – unlike traditional multimeters that force you to break the circuit and insert the meter in series, a clamp-on ammeter simply clamps around the wire and measures the magnetic field created by the current flow. No disconnecting, no wire cutting. Just clamp and read.

Here's how this plays out in real troubleshooting:

You clamp the ammeter around one booster output wire: **4 amps.** Current definitely is flowing.

Move to the main track bus: **4 amps.** Still flowing – the short is somewhere downstream.

Now test feeder pair #1: **0 amps.** Not this one.

Test feeder pair #2: **0 amps.** Not this one either.

Test feeder pair #3: **4 amps.** *There it is!*

The short is on feeder pair #3. You just traced it directly – no disconnecting feeders, no guessing, no hours of trial-and-error. The current itself showed you exactly where to look.

Component 2: Current-limiting taillight lamps

Here's where the traditional disconnect method fails: When you have a real dead short, your DCC booster shuts down instantly.

Everything goes dark. No current flow means no ammeter reading, which means you're stuck. You can't follow what isn't there!

That's when automotive taillight lamps come to the rescue. Mount one or two #1156 bulbs between the booster and track, and suddenly everything changes. The lamp filament limits current flow through the short to safe, measurable levels – while keeping the booster powered and happy with a load.

One #1156 lamp limits current to approximately 2 amps.

Two #1156 lamps in parallel limit current to approximately 4 amps.

This is the sweet spot. It provides enough current to keep the booster seeing a load instead of a dead short, create a measurable magnetic field for your ammeter, and light up those lamps brightly for visual confirmation that current is flowing – but not enough to damage your track or equipment.

When current flows through the short, those lamps light up like beacons. You can trace the current path at your own pace, methodically testing each feeder until you find the one feeding the fault.

Safety warning: These lamps get *HOT* during testing –enough to cause second-degree burns or melt plastic ties. Never touch them

while lit or immediately after cutting power. Mount them somewhere safe, away from anything flammable, and treat them with respect. The heat is normal and necessary, but you can get nasty burns if you're careless.

Component 3: DPDT switch for mode selection

You need a way to switch between normal operation and test mode – that's where a simple DPDT (double-pole, double-throw) switch comes in. Think of it as your mode selector.

Normal mode: Flip the switch one way, and your booster connects directly to the track bus. Full power, no current limiting, standard DCC operation. Run trains, operate turnouts – everything works normally.

Test mode: Flip the switch the other way, and the booster routes through the current-limiting lamps before reaching the track bus. Current-limited to 2-4 amps, safe for troubleshooting, ready to trace that short.

The wiring is straightforward:

- One switch position gives you booster-to-track-bus directly
- The other position gives you booster-through-lamps-to-track-bus

That's it.

What to buy:

Any standard DPDT toggle switch rated for at least 5 amps will do. Cost: $5-$8.

A switch with a center-off position is convenient but optional – it gives you an "off" position between normal and test modes.

THE STEP-BY-STEP TROUBLESHOOTING PROCESS

Let's walk through this exactly the way Dick Bronson does it.

This is a systematic hunt where each step builds on the last, following the current trail straight to the fault. Think of it as detective work with an ammeter.

The New Cab Control Has Arrived!

Stock #50310

- **Now Includes Our All New Mobile Control Pro Throttle**
- **ALL NEW Real Scale Speed Display and Physical Brake Slider**
- **Control Over 16,000 Locomotives**
- **Simple Consisting**
- **Can be used with other WiFi Throttles and Devices**
- **Variable Voltage 7amp Power Supply For Use With All Scales**
- **Built In WLAN Access Point**
- **ECoSlink Port for use with all ESU accessory decoders**

Simply connect the Cab Control to your layout and enjoy your trains!

SCAN ME For More Information

Mobile Control Pro

Also sold separately as #50116

www.loksound.com

Step 1: Establish your baseline in normal mode

Before switching to test mode, confirm the fault is real and reproducible.

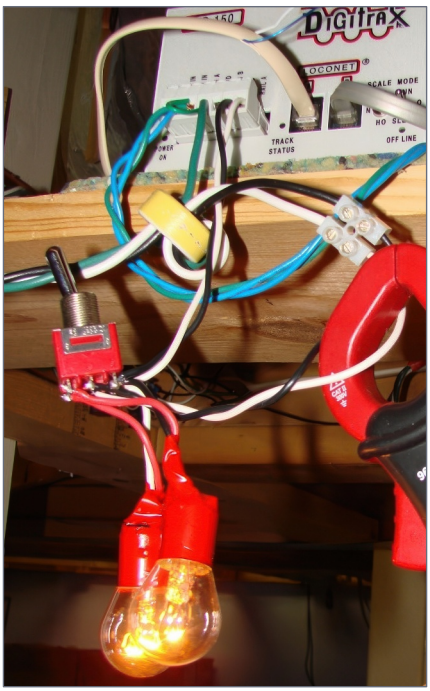
Set your DPDT switch to position 1 (normal mode) – that's booster directly to track, no current limiting. Now trigger the short. Run that locomotive through the problem turnout, close that suspect switch, or do whatever causes the fault.

Click! The booster should shut down immediately.

Perfect. That confirms two things:

- The fault is active right now
- It's reproducible on demand

You're not chasing a ghost – you've got a real, testable short. Now we can hunt it down.



2. These #1156 lamps limit bus current being measured at the booster. Dick Bronson photo

VIEW READER COMMENTS

Step 2: Switch to test mode and verify current flow

Flip that DPDT switch to position 2 (test mode). Now the booster routes through the current-limiting lamps before reaching the track.

Reset your booster, then trigger the short again.

Watch those lamps – they should light up brilliantly. If they don't, stop and check your wiring.

When they do light up, that's your visual confirmation that current is flowing through the short at safe, measurable levels.

The booster stays on, happy as can be, because it sees a load but not a dead short.

Step 3: Measure current at the booster

Now grab your clamp ammeter.

Clamp it around *one* of the booster output wires – doesn't matter which, but clamp only one wire. If you clamp both wires together, the magnetic fields cancel and you'll read zero even though current is flowing.

Read the ammeter: You should see 0.5 or more amps depending on how many lamps you're using. One #1156 lamp draws about 2 amps; two in parallel draw 4 amps.

This confirms current is flowing from the booster. You're in business.

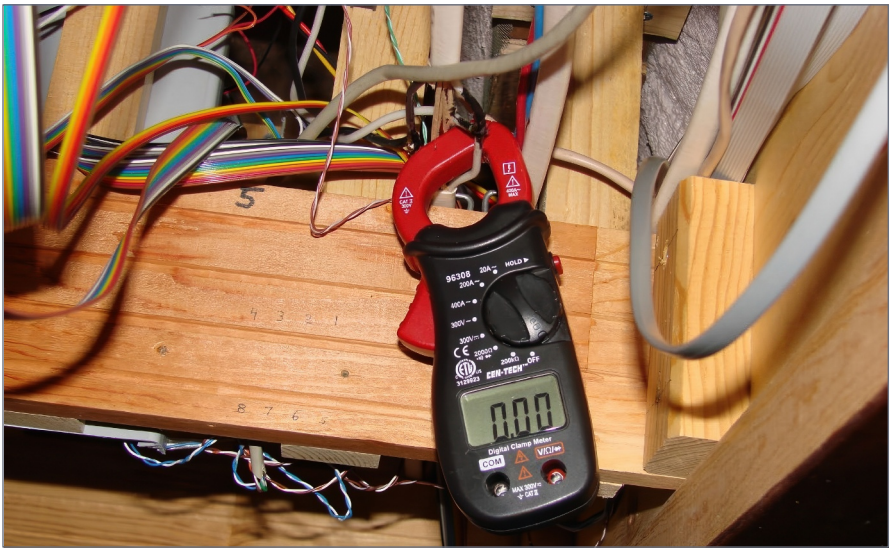
This means we have passed the feeder branch with the short.

Step 4: Measure current at the main track bus

Now move to where the booster connects to your main track bus.

Clamp the ammeter around one of the track bus wires – again, just *one wire,* not both.

Read the current: It should match what you saw at the booster (2-4 amps). This confirms the current is flowing into the track bus and heading downstream toward that short. We're following the trail.



3. We see that the current in the main bus is zero at this point. This means we have passed the feeder branch with the short. Dick Bronson photo

Step 5: Test each feeder pair systematically

Now test each feeder pair at your terminal strips to find which one is carrying current to the short.

Start with feeders in the area where the short occurred – no sense testing the staging yard feeders if the short happened in the main yard.

For each feeder pair, clamp the ammeter around one wire at the booster, remember which one it is, and clamp the meter around the same wire everywhere when measuring track current in the following steps. Read the current.

If the ammeter reads 0 amps: This feeder isn't involved in the short. Current isn't flowing through this branch. Move to the next feeder.

If the ammeter reads well over 0 amps: *There it is!* This feeder is carrying current to the short. You've found it.

Let's say you test feeder pair #1: 0 amps. Not this one.

Test feeder pair #2: 0 amps. Not this one either.

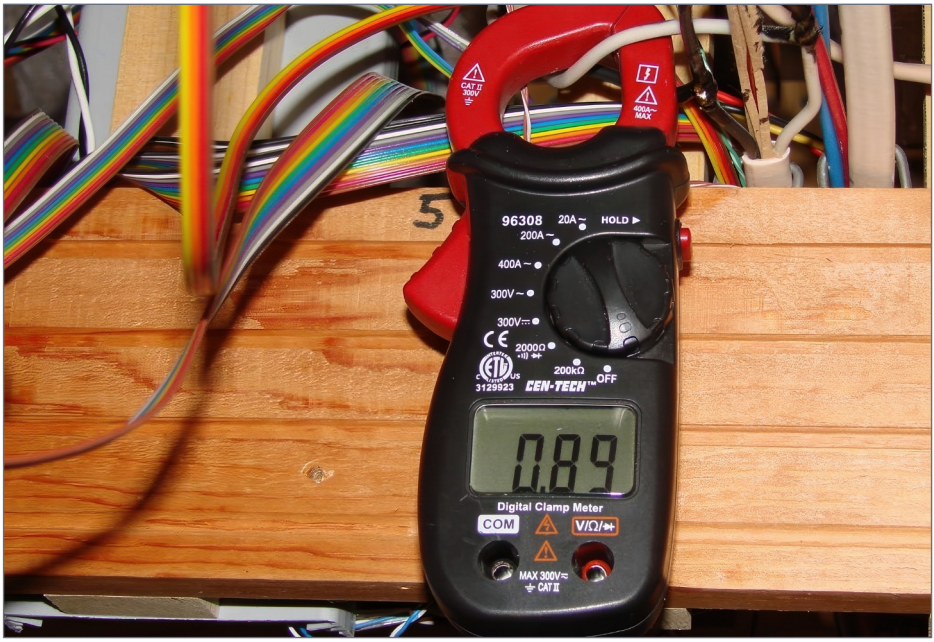
Test feeder pair #3: 0.89 amps [4]. *Bingo.* The short is on the track section fed by feeder pair #3.

Step 6: Verify that you found the problem feeder

Now confirm you've got the right feeder to prove beyond doubt that the short is on this specific track section.

Disconnect that feeder pair at the terminal strip. Watch what happens: those lamps should go dark immediately.

Check the ammeter at the booster – it should now read 0 amps. No current flow means no short.



4. At this point we discover that the short-circuit current is flowing in this feeder. Even in cramped spaces, it is easy to follow the short-circuit current without disconnecting any wires. Dick Bronson photo

That's your confirmation. The short was on this feeder's track section.

Step 7: Locate and repair the fault

Now that you know which track section has the short, it's time for visual inspection.

Get close to that section with good lighting and magnification if needed. Look for:

- Metal whiskers or a stray spike bridging the rails
- Damaged plastic ties exposing metal
- Loose rail joiners creating intermittent contact
- Corrosion
- Any foreign metal objects

Find the fault and repair it – remove that metal whisker, replace that damaged tie, secure that loose joiner, whatever it takes. Then reconnect the feeder at the terminal strip.

Step 8: Return to normal operation and test

Flip the DPDT switch back to position 1 (normal mode).

Now test the previously problematic area – run that locomotive through the turnout, close that switch, trigger whatever caused the short before.

The booster should stay on. Those lamps should stay dark. Run trains normally through the area.

Fault resolved. Total troubleshooting time? Minutes instead of hours.

REAL-WORLD SUCCESS: INITIAL TEST

Before Dick Bronson would trust this method on a real fault, he wanted proof it actually worked. So he did what any good engineer does – he set up a controlled test with a known short on his Little Mountain & Possum Hollow Railroad [5].

If the ammeter could find a fault he deliberately created, he'd know the method was sound.

Dick's layout has 12 feeder pairs spread across three districts – mainline east, mainline west, and the yard complex. He wired up his test system: two #1156 lamps in parallel for 4-amp capacity, the DPDT switch installed and ready, and his clamp-on ammeter battery charged up.

First, the baseline test. Dick attached the #1156 lamp circuit into the booster output feeds and flipped the switch to normal mode, then placed a screwdriver across the rails in the yard ladder area. Click! The booster shut down instantly, exactly as expected. Good – the short was real.

Now for the test. Dick flipped the DPDT switch to test mode, reset the booster, and placed the screwdriver across the rails. Both lamps blazed to life. Current was flowing through the short at safe, measurable levels. The booster stayed on.

Dick clamped the ammeter around the booster output wire: *2.1 amps.* Perfect.

Now to the main track bus: *2.1 amps.* Current was flowing into the layout.

5. Dick Bronson's Little Mountain & Possum Hollow RR.

Time to find which feeder was carrying it.

He moved to the terminal strip and started testing feeders systematically.

- Feeder #1, mainline east: *0 amps.* Not this one.
- Feeder #2, mainline west: *0 amps.*
- Feeder #3, yard throat: *0 amps.*
- Feeder #4, yard ladder: *2.1 amps.* There it is.

Dick disconnected feeder #4 at the terminal strip. The lamps went dark immediately. The ammeter dropped to zero. The short was definitely on feeder #4's track section – exactly where Dick had placed that screwdriver.

Total time from switching to test mode to identifying the problem feeder: under five minutes.

The method worked. No guessing, no trial-and-error, no disconnecting multiple feeders hoping to stumble onto the right one. The ammeter followed the current straight to the fault, fast and effective. Dick was convinced.

REAL-WORLD SUCCESS: JACK PARKER'S P&W RAILROAD

Jack Parker's Providence & Worcester Railroad had developed an intermittent short in the industrial district near the engine terminal. And I mean a *maddening* intermittent.

This is where the ammeter method truly proved its worth – not on a controlled test with a known fault, but on a real-world nightmare that had been driving Jack to despair for weeks.

The fault showed up only with certain locomotives – the heavier ones, mostly. It happened only in that specific area. And it didn't happen every time – maybe 60% of runs through that section would trigger the short, but the other 40% ran clean. Visual inspection revealed nothing obvious.

Jack had tried everything. He cleaned the track until it gleamed, checked every rail joiner, inspected all the turnouts, and even

6. On Jack's layout, he would sometimes get a short at this location when he ran heavy power, such as this 2-8-8-2.

replaced two sections of suspect track. Nothing worked. The short kept coming back, random and unpredictable.

Traditional troubleshooting was useless. When Jack tried the disconnect method – pulling feeders one by one to isolate the problem – the short wouldn't cooperate. It would vanish when he started testing, then reappear hours later after he'd reconnected everything. He spent 15-20 hours over three weeks and got nowhere.

That's when Dick showed up with his ammeter setup.

Dick's approach was different. Instead of isolating sections while the fault was dormant, he'd catch it *in the act.*

They wired in the test system temporarily: two #1156 lamps in parallel, the DPDT switch spliced into Jack's booster output, ammeter ready. Jack's layout had 28 feeder pairs across four districts, so this could take a while with traditional methods. But Dick was confident.

"Run one of those problem locomotives through the industrial district," Dick said. "Let's see if we can trigger it."

Jack ran his Atlas C424 through the area. Clean pass. He ran it again. Clean pass. Third time – *click!* The booster shut down.

"Perfect," Dick said, flipping the DPDT switch to test mode. "Now run it again."

Jack reset the booster and eased the C424 forward. The lamps blazed to life. The short was active, right now, measurable and traceable.

Dick moved fast. Ammeter around the booster output: *4.2 amps.* Current flowing. Ammeter around a main track bus wire: *4.2 amps.* Current heading into the layout. Now to find which feeder.

Dick started with the feeders in the industrial district.

- Feeder #14, engine terminal lead: *0 amps.*
- Feeder #15, industrial spur 1: *0 amps.*
- Feeder #16, industrial spur 2: *4.2 amps.*

Found it.

Total time from switching to test mode to identifying the problem feeder: less than three minutes.

Dick disconnected feeder #16. The lamps went dark immediately. Confirmation.

Now came the inspection. They examined the track section carefully – rails, ties, joiners, turnout points. Nothing. Everything looked perfect.

But Dick wasn't satisfied. "Let's check under the benchwork," he said.

Jack crawled underneath with a flashlight while Dick held the feeder wire. And right where the wire passed through the metal benchwork frame near a support brace – *there it was.*

The feeder wire had been pinched between the benchwork and the metal brace. Not crushed, just pinched enough so that over time, vibration from passing trains had worn through the insulation. The bare wires were making contact with the metal brace – but only occasionally, only when trains created enough vibration to flex the wire against the metal.

That's why the short was intermittent. That's why only heavier locomotives triggered it – they created more vibration. That's why it happened in that specific area – where the pinched wire was.

And that's why traditional troubleshooting failed – disconnecting feeders eliminated the vibration, so the wire stopped flexing and the short disappeared.

The ammeter caught it because it traced the fault *while it was happening,* in real-time, with the locomotive still running and creating that vibration.

Dick repositioned the feeder wires away from the metal benchwork, added a protective rubber grommet where the wires passed through the benchwork, and secured everything with a cable tie. Five minutes, done.

Jack ran the C424 through the area 10 times. No shorts. The fault was gone.

Total troubleshooting time with the ammeter method: less than 10 minutes – including setup, testing, inspection, and repair.

Jack stood there shaking his head. "I spent 15-20 hours on this over three weeks using traditional methods," he said. "The ammeter found it in minutes – even though the short was intermittent and wouldn't show up during normal testing. I'm installing a permanent DPDT switch in my layout. This method is worth every penny."

CHOOSING YOUR TROUBLESHOOTING METHOD

You now have two powerful methods. Here's when to use each:

When the ammeter method excels

- The fault is reproducible or intermittent-but-catchable (motion-dependent, temperature-dependent)
- You want fast, non-invasive results (clamp and read vs. disconnecting wires)
- You have the equipment available (~$50-$60 total investment)
- Visual confirmation with lamps helps verify the fault is active

When divide-and-conquer is your best choice

- The fault is non-reproducible and won't show up during testing
- You don't have ammeter equipment available
- Your layout has modular wiring with easy disconnection points
- You prefer methodical, systematic testing

Ammeter vs. traditional disconnect

The ammeter method beats traditional feeder-by-feeder disconnection in three ways:

- It's faster (test all feeders in minutes)
- It's non-invasive (no wear on connections)
- It catches intermittent shorts in real time

For reproducible faults, it's dramatically more effective.

Combining methods for maximum effectiveness

You don't have to choose just one approach. Combining methods can be more powerful:

Scenario 1: Start with divide-and-conquer, finish with ammeter

If you have a non-reproducible fault, use divide-and-conquer to narrow it down to a specific district or section. Once you've isolated the general area, the fault often becomes reproducible (you've limited the variables). Then switch to the ammeter method to pinpoint the exact feeder.

Scenario 2: Use ammeter for a quick check, fall back to divide-and-conquer if needed

If you have ammeter equipment, try it first – even on intermittent faults. If you catch the fault while it's active, the ammeter will find it in minutes. If the fault won't cooperate, switch to divide-and-conquer for systematic isolation.

The key principle: Choose the method that fits your specific situation. There's no one "best" method – only the best method *for your particular fault and circumstances.*

TROUBLESHOOTING THE TROUBLESHOOTING SYSTEM

What if the lamps don't light up in test mode?

Yeah, I know – nothing's more frustrating than when your troubleshooting gear won't cooperate. But don't worry, these problems are usually simple.

This is almost always a wiring issue. Check these in order:

DPDT switch wired correctly – Did you swap the normal and test positions? Happens to everyone. Double-check against the wiring diagram.

Lamps properly seated in sockets – Give them a twist. Sometimes they're not making good contact.

Short is actually present – Test in normal mode first. Does the booster trip? If not, there's no short to find.

- *Booster is on and reset* – Sounds obvious, but I've seen it a dozen times. Hit that reset button.
- *All connections secure* – Wiggle every wire. Loose connections are the bane of our existence.

What if ammeter reads zero everywhere?

Okay, this one's usually operator error – no offense – we've all been there. Here's what to check:

- *Ammeter battery* (if battery-powered) – Dead battery = dead ammeter. Swap in a fresh one.
- *Clamp around only ONE wire, not both* – This is the #1 mistake. If you clamp around both track wires together, the magnetic fields cancel and you read zero. Clamp around just ONE wire.
- *Set ammeter to AC mode, not DC* – DCC is AC. If your meter is in DC mode, you'll get nonsense readings.

TROUBLESHOOTING THE TROUBLESHOOTING SYSTEM *CONTINUED ...*

- *Current range appropriate* (0-10 amps) – Some meters won't register anything below 5 amps. You need sensitivity down to 1 amp or less.
- *Ammeter jaws fully closed around wire* – If there's a gap, the reading will be wrong. Make sure those jaws click shut.

What if multiple feeders show current?

Don't panic – this doesn't necessarily mean multiple shorts. If it does, then fix them one at a time. Otherwise, here's what's happening:

- *Feeders connected in parallel serving same section* – If two feeders go to the same track section, they'll both show current. That's normal. Disconnect one and retest.
- *Measurement error* – Retest carefully. Make sure you're clamping around the right wires and getting consistent readings.

What if lamps light but ammeter shows no current?

This is rare, but it happens. Usually means your ammeter isn't sensitive enough or needs calibration:

- *Ammeter sensitivity* – Try a lower range if your meter has multiple settings. Some meters aren't sensitive enough for the 2–4-amp test current we're using.
- *Ammeter calibration* – Cheap meters can drift. If you've got a known current source, check the meter against it.
- *Try a different ammeter if available* – Sometimes you need better equipment. Borrow a friend's meter and see if works as expected.

Look, troubleshooting the troubleshooting system is annoying, but it's usually something simple.

Work through these checks methodically, and you'll get it sorted.

And once it's working? You'll wonder how you ever lived without it. ■

EQUIPMENT LIST AND ASSEMBLY GUIDE

Alright, let's build this thing.

You're looking at maybe an hour and $50-$70 in parts – most of which you can grab at your local auto parts or hardware store. This isn't rocket science, and you don't need to be an electrical engineer. If you can wire a turnout, you can build this system.

Here's what you need and where to get it.

The shopping list

1. Clamp-on multimeter that can read AC amps

You want a meter that can read 0-10 amps AC with a clamp feature so you can check a wire without disconnecting anything.

I like the *Amprobe ACD-10 PLUS.* It's a solid, reliable meter that is widely available.

Any similar clamp-on multimeter will work fine – just make sure it reads down to one amp or less. Some meters won't register anything below five amps, which is useless for our purposes.

What to avoid:

- DC-only meters (we need AC for DCC)
- Meters without the clamp feature (defeats the whole plan)
- Meters with a minimum range above 1 amp (won't detect our 2–4-amp test current)

2. Automotive taillight lamps

Head to any auto parts store. Ask for *#1156 standard automotive tail light bulbs.* Not the fancy LED replacements. Not the dual-filament #1157s. Just plain old incandescent #1156 bulbs.

You need *two of them* at $3-$5 each. Grab a couple extras while you're there – they're cheap, and it's nice to have spares.

Why #1156 specifically?

They limit current to exactly the range we need – about two amps each, four amps when you wire two in parallel. Other bulbs have different characteristics, and won't give you the same current limiting.

3. Lamp sockets

While you're at the auto parts store, grab *two ceramic lamp sockets* for those #1156 bulbs. Look for the ones with wire leads already attached to make life easier.

Ceramic construction is important because these things get **hot,** and plastic sockets will melt.

Cost: $3-$5 each. Make sure they have secure mounting tabs so you can bolt them to your mounting board.

4. DPDT toggle switch

This is your mode selector – normal operation versus test mode. You want a *double-pole, double-throw (DPDT)* switch rated for at least 5 amps.

I recommend getting one with a *center-off position* if you can find it – gives you a nice "everything's off" position between normal and test modes.

Cost: $5-$8 from Digi-Key, Mouser, or any electronics supplier. Standard DPDT toggles from NKK, C&K, or E-Switch all work great.

5. Mounting board

You need something with a high combustion point to mount everything on. Remember, those lamps get hot enough to fry an egg. A piece of 1/4″ plywood or MDF works fine – 8″ x 10″ minimum.

Got scrap wood in the garage? Perfect. Want to get fancy? Use a metal plate. Either way, you're looking at $5-$10, or free if you have scrap lying around.

6. Wire and connectors

Grab some 14-16 *AWG stranded wire* – red and black to indicate polarity. You'll need 3-4 feet of each color.

Pick up ring terminals or spade connectors to match your booster and track bus connections.

Total cost: $10-$15 for wire and connectors at any hardware store.

Grand total for the complete system: $50-$70 – depending on which multimeter you choose, and whether you've already got wire and connectors.

PUTTING IT ALL TOGETHER

Let's walk through it step-by-step.

Step 1: Mount the lamps and switch

Screw-down your two ceramic lamp sockets on the mounting board, toward the back. Space them 4-5 inches apart for good heat dissipation. Mount the DPDT switch midway along the front edge.

Critical: Make sure you've got at least 6 inches of clearance above those lamps. They're going to get hot, and you don't want them cooking anything important.

Step 2: Wire the lamps in parallel

Connect the positive leads from both lamp sockets together. Connect the negative leads together.

Now you've got one combined positive lead and one combined negative lead from your lamp pair.

Wire these combined leads to the DPDT switch's position 2 terminals – that's your test mode position. This parallel configuration gives you the 4-amp current limiting we're after.

Step 3: Wire the switch for normal and test modes

Here's where everything comes together. Connect your booster's track power outputs to the switch's center terminals.

Position 1 (normal mode): Wire the switch so it connects the booster directly to your track bus. No lamps, no current limiting – just straight-through power.

Position 2 (test mode): Wire the switch so current flows from the booster, through the lamps, and then to the track bus. Current-limited and safe for troubleshooting.

Use two or three feet of wire between the switch and your booster/track bus connections for positioning flexibility.

Step 4: Label everything and test it

Grab a label maker or masking tape and a Sharpie. Label the switch positions "NORMAL" and "TEST." Add a warning label near the lamps: *"CAUTION: LAMPS GET HOT."*

Trust me, you'll thank yourself later when you instinctively reach for one.

Now test the installation:

1. Flip to normal mode. Your layout should operate normally. Lamps should be dark.
2. Flip to test mode. Layout should still operate. Lamps should be dark (no short yet).
3. Create a deliberate short – touch a screwdriver across the rails.
4. In normal mode, the booster should shut down. *Click!*
5. In test mode, the lamps should light up – brilliant and blazing hot.
6. Remove the screwdriver. Lamps should go dark.

If all that works, congratulations! Your system is ready for troubleshooting.

The wiring diagram

See [7] for a wiring diagram for the DPDT switch configuration.

On the wiring diagram, the down-toggle connects the booster directly to the track bus. The up-toggle routes current through the parallel lamps before reaching the track bus. Simple, elegant, effective.

Want to get fancy? Optional enhancements

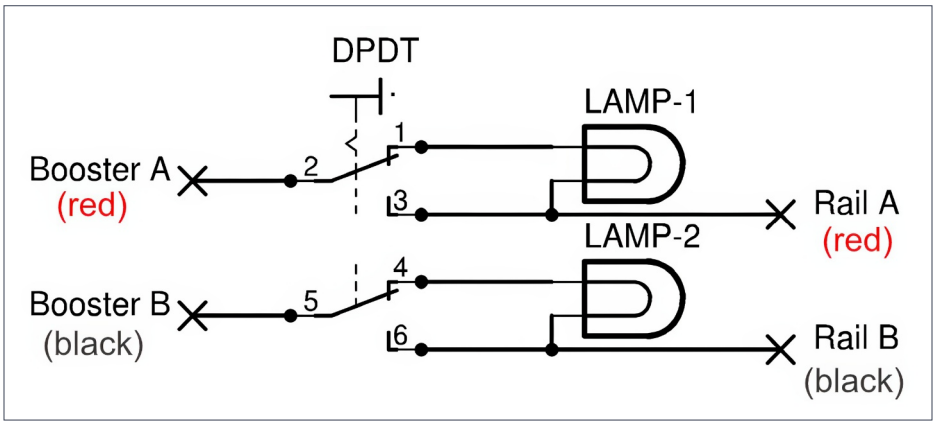
Permanent installation: If you'll use this regularly, mount it near your booster. Build a project box to enclose the switch and wiring – but leave the lamps exposed for heat dissipation.

Portable version: Build the system on a small board with a handle. Use alligator clips for temporary connections.

Store it in your toolbox, and you've got a portable troubleshooting rig you can take to club layouts, or help fellow modelers. I've seen folks build beautiful portable versions in old toolboxes – looks professional and works like a charm.

SUMMARY: FOLLOWING THE CURRENT TO VICTORY

Look at what you've got now: *Two powerful troubleshooting methods.* Two completely different approaches to the same maddening problem – and you know exactly when to use each one.



7. Wiring diagram for the #1156 current-limiting circuit.

The ammeter method? It's your speed demon. When that short shows up every time you run that locomotive, throw that turnout, or enter that section, you don't need to play detective with disconnections. You *follow the current itself* directly to the fault. Fast. Non-invasive. Devastatingly effective.

Part 1 gave you divide-and-conquer for ghost shorts that won't cooperate. Part 2 handed you the ammeter method for faults you can trigger on demand. Use the decision framework above, and you'll nail the right method every time.

But sometimes you need more than "which feeder." Sometimes you need to know *exactly where* along that feeder the fault is hiding. Within inches. Pinpoint precision. That's where Part 3 comes in.

Looking ahead: Part 3

We'll be exploring the most precise troubleshooting technique in your arsenal: *the constant-current millivolt method.* This approach uses DC voltage and digital multimeter measurements to locate faults with surgical accuracy. We're talking inches, not feet.

When you positively need to know the exact spot where that metal whisker is bridging your rails, Part 3 delivers.

Part 2 narrowed it down to the problem feeder. Part 3 puts your finger right on the fault.

Until then? Build your ammeter troubleshooting system. Test it on a known short – touch that screwdriver across the rails and watch those lamps blaze. Get comfortable with the equipment. And keep it ready.

Because the next time your booster trips unexpectedly, you're going to trace that fault in *minutes instead of hours.* The next short won't stand a chance! ☑

***Click here** [for this article's shopping list](#) ...*

DICK BRONSON & JACK PARKER

Special thanks to Dick Bronson for documenting the clamp-on ammeter method in his previous article, and to Jack Parker for letting us share his real-world troubleshooting experience on the P&W Railroad. ■

QUICK REFERENCE GUIDE

Need the ammeter method in a nutshell? Here's your cheat sheet – print it and tape it to your layout fascia. When the booster trips during an operating session, you'll thank me.

Equipment needed:

- Clamp-on AC ammeter (0–10-amp range)
- Two #1156 automotive taillight lamps
- DPDT toggle switch
- Ceramic lamp sockets
- Wire and connectors

When to use:

- Fault is reproducible
- Need fast results
- Want non-invasive testing

Process:

1. Switch to test mode
2. Verify lamps light up
3. Measure current at booster (should read 2-4 amps)

QUICK REFERENCE GUIDE *CONTINUED ...*

4. Measure current at track bus (should match booster)
5. Test each feeder pair
6. Zero amps = not this feeder
7. 2-4 amps = found it!
8. Disconnect problem feeder
9. Verify lamps go dark
10. Inspect and repair

Safety:

- Lamps get extremely hot
- Mount away from flammable materials
- Never touch during or after testing
- Allow 5+ minutes cooling time

Typical troubleshooting time: 5-10 minutes on most layouts.

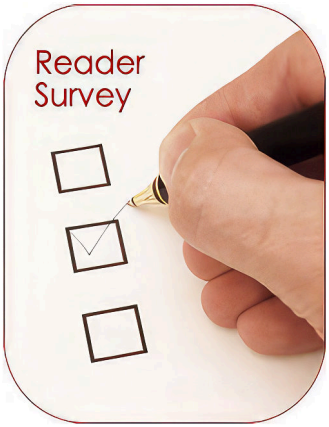
Please be sure to rate the articles so we can continue to give you great articles!

Have you taken our reader survey?

Achieve your hobby dreams

MRH MEDIA

MRH Media



Free drawing:
ten 25% off MRH Store coupons,
three 10″ android tablets, and a lifetime sub to TrainMasters TV + Running Extra

Take the 2026 MRH reader survey ▶

DID YOU KNOW MRH REGISTERED READERS GET FREE BONUSES?

CLICK TO REGISTER NOW - IT'S FREE!

DIGI

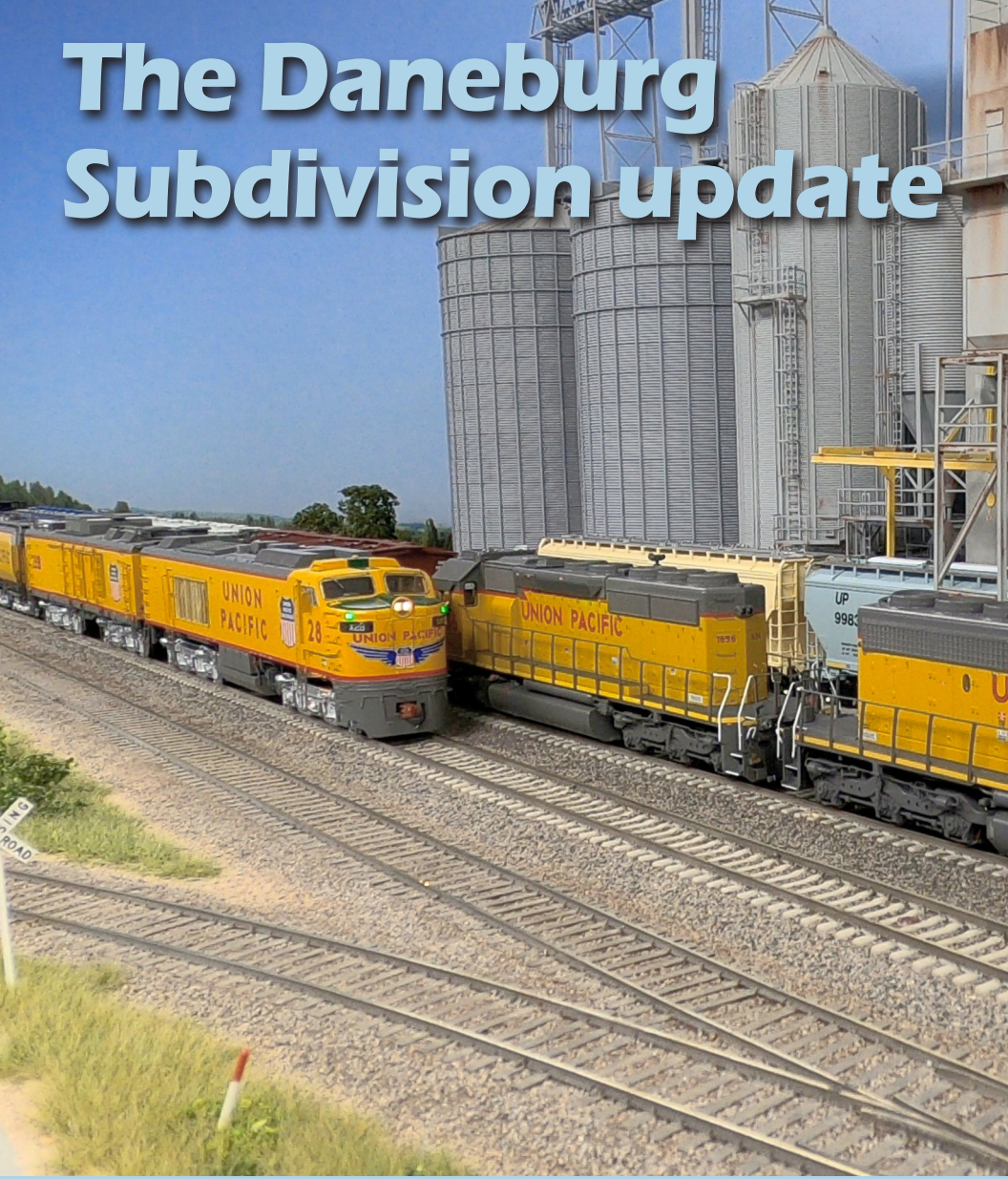
Introducing the UT6 &
for Digitrax Comp

- Compact size for easy one-han
- Color 1.5" LCD Screen
- Full numeric keys for easy Loc
- Fine speed control with a larg
- Removeable LocoNet® cord
- Forward/Reverse toggle switc
- Off/On switch, uses AA or BP6

Find out more @ www.

MRH MARKETPLACE

The Daneburg Subdivision update



The *MRH* staff covered this layout in June 2019 when it was in Utah – here is its unfolding story now that ScaleTrains has acquired it ...

REGISTER *(free)* INDEX TABLE OF CONTENTS

1. Pelle Søeborg's Daneburg Sub is now owned by Scale Trains, and has been moved it to their Tennessee headquarters. Here we see a train led by a UP Big Blow Turbine set – a model ScaleTrains produces in their top-tier "Museum Quality" line – overtaking a pair of SD40s from their "Rivet Counter" line.

VIEW READER COMMENTS

BASED IN CHATTANOOGA, Tennessee, ScaleTrains makes HO, N, and S scale locomotives and rolling stock. They're known for getting the details right, which matters to serious modelers.

The Daneburg Subdivision is one of their most visible assets – a centerpiece for product photography and a demonstration of what's possible when you care about prototype accuracy. It's become a valued part of how they show the modeling community what they stand for.

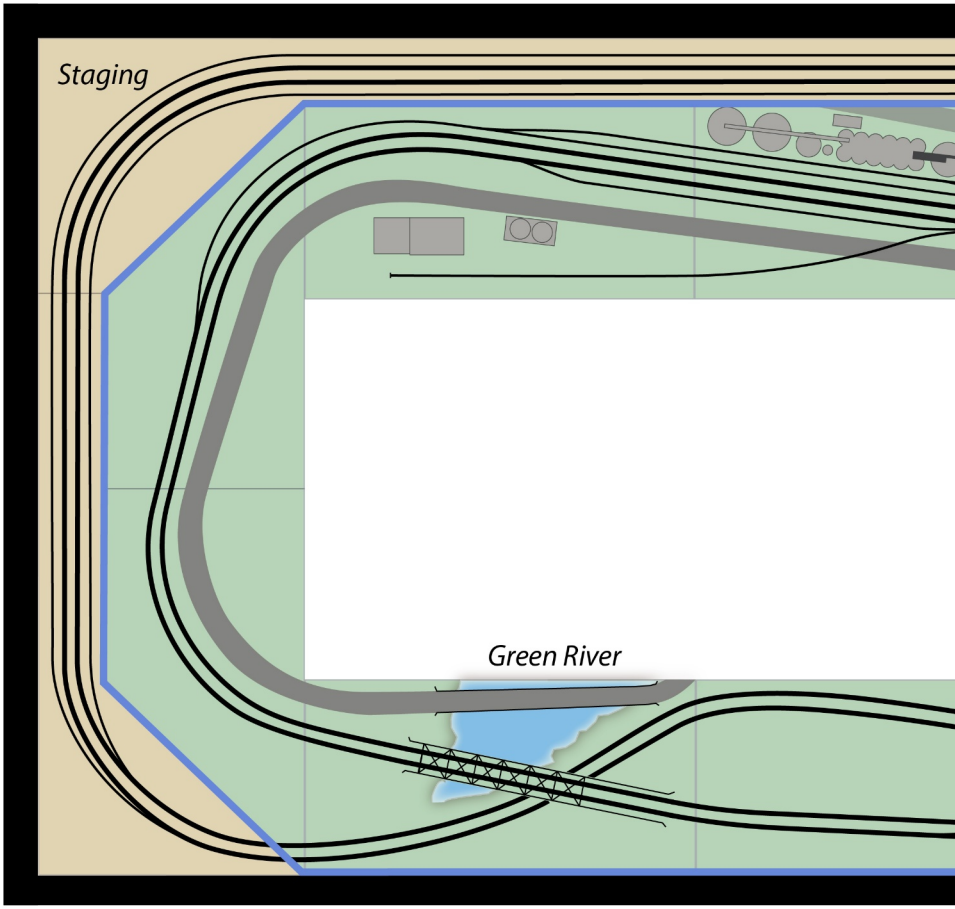
A HISTORIC CONVERGENCE

Pelle Søeborg is a Danish modeler who takes ordinary railroad scenes and models them with such precision and restraint that they stop you cold.

His work doesn't announce itself. It rewards close observation with layers of detail that reveal themselves gradually – the kind of modeling that looks simple until you realize how visually rich simple can be.

Pelle wrote *Building a Sectional Layout* for Kalmbach Books – now Firecrown Media. It's a practical guide to designing home layouts in modular sections, the kind of thinking that lets you work on

2. When you enter this room at the ScaleTrains offices, this view of the 11′x22′ Daneburg Sub greets you. Chris Brimley designed the attractive trestle-style support system for the layout.

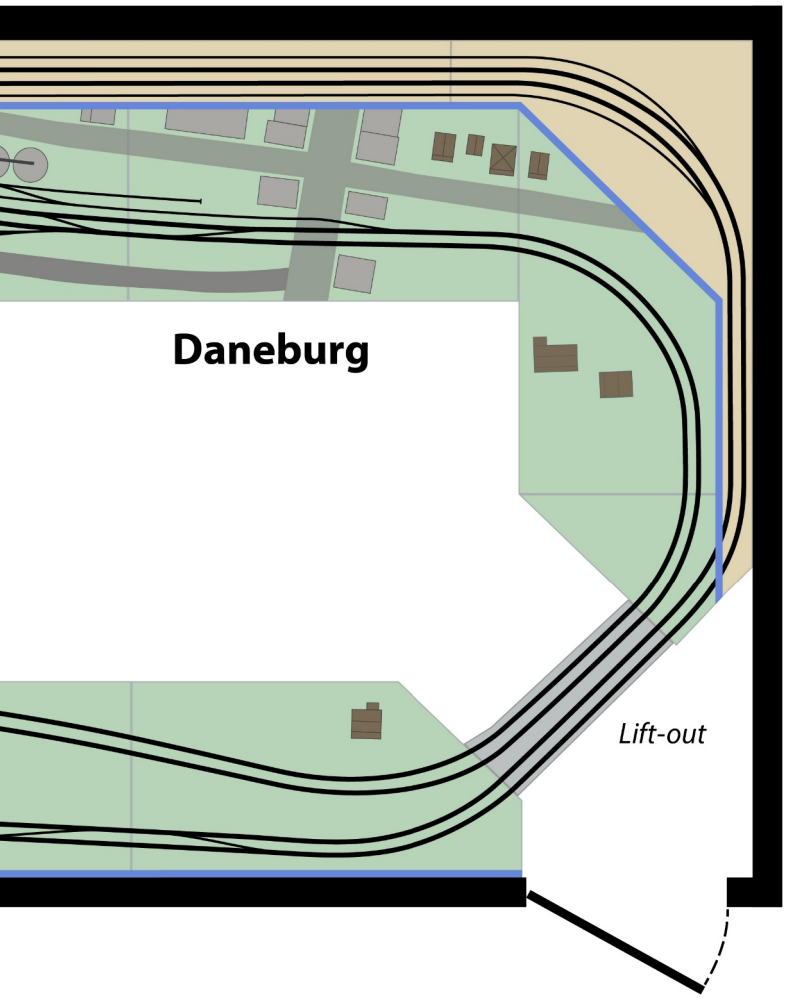


Pelle Søeborg's

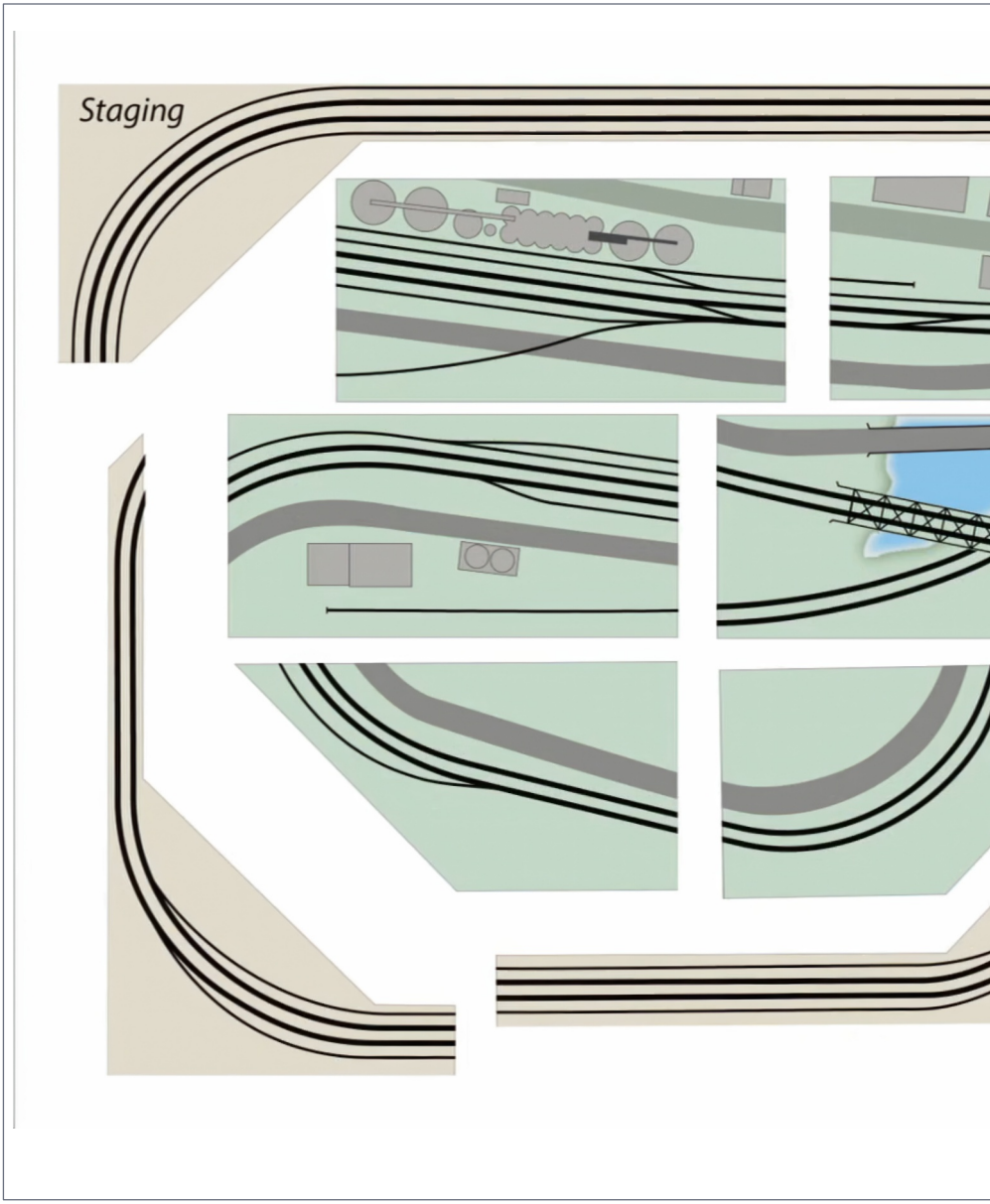
Union Pacific
Daneburg Subdivision

HO Scale - Size: 11' x 22'

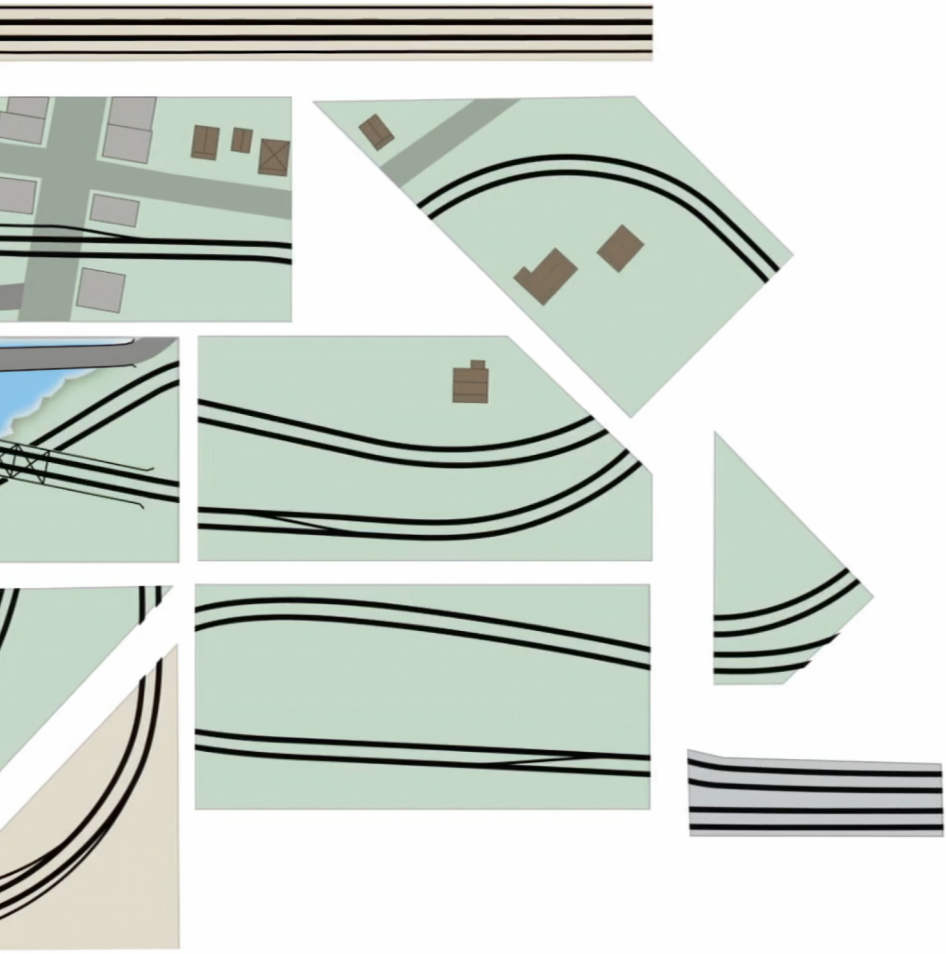
3. Here is the track plan and "module section map" of the Daneburg Sub.



VIEW READER COMMENTS



4. When it's all disassembled for transport, you get this collection of module sections. The one large staging section up top proved to be a problem in the move to Tennessee.



VIEW READER COMMENTS

manageable pieces, get underneath them easily, and move them when life demands it.

If you've followed *MRH's* TOMA approach, you already know this philosophy. Pelle's book proves you can build a world-class layout in sections without sacrificing quality or operation.

Most of Pelle's modeling has focused on western US railroading – arid landscapes and desert scenes. The Daneburg Subdivision is different.

It's set in the Nebraska heartland with cornfields and grain elevators. Pelle rendered this Midwest character with the same authenticity he brought to the desert. His approach works anywhere.

5. Main street in Daneburg and its grade crossing is a signature scene. Pelle's use of forced perspective in the backdrop photo is masterfully done.

The Daneburg Subdivision is an 11-by-22-foot freelanced Union Pacific layout built in modular sections. Pelle designed it in Denmark, and it's traveled an extraordinary path – across the Atlantic to Utah, then to Tennessee, surviving three major moves.

It now sits inside the ScaleTrains headquarters in Chattanooga, fully operational and thriving.

This summer, modelers will get a real treat. The 2026 NMRA National Convention comes to Chattanooga, and the Daneburg Subdivision will be on display. This is a rare chance to study the layout firsthand – a layout that crossed an ocean and proved sectional design is sound layout engineering that works.

Shane Wilson, Co-Founder and President of ScaleTrains, reflects on what this moment means:

6. Another iconic element is the amazing grain elevator, with all its exquisite weathering and texture. This unconventional angle demonstrates how every part of the complex features exceptional detail.

> "I think Pelle, in our conversations, really believed he'd never have this opportunity again. And I know he's genuinely excited to see the railroad and run trains on it once more."

Think about what's converging here.

A world-class layout reunited with its creator at a national convention in the city that's become its permanent home. The Daneburg traveled thousands of miles, changed hands, and survived relocations that would have destroyed many layouts – all because of deliberate design choices Pelle made from the beginning.

The story of how it got here matters because it validates an approach to layout building many modelers may dismiss as impractical. Pelle didn't build modular because he planned to move the layout three times. He built modular because that made sense – better access, easier maintenance, and a contained mess with the sections in a workspace made for such messy work.

The fact that it survived multiple moves has proved the philosophy sound.

Chris Brimley, ScaleTrains' Project Manager who has worked with the layout through all its transitions, puts it plainly:

7. The road approaching the city limits of Daneburg is complete with cracking pavement and a city limits sign just like we're all used to seeing when on a road trip. Pelle's attention to the tiny details is a treat for the eyes.

VIEW READER COMMENTS

> "Pelle fortunately designed the layout modular from the start. If it were a typical fixed home layout, moving it would have caused serious damage."

When ScaleTrains acquired ExactRail and its TrainLife brand, the Daneburg came with the deal. The layout had already made one international journey from Denmark to Provo, Utah. Now it would make another move – from Utah to Chattanooga.

Each move tested Pelle's construction. The benchwork held. The trackwork came through. The scenery survived.

8. This dilapidated barn has been through decades of weather and badly needs maintenance. Drive past a hundred real world barns in disrepair, and this fits right in.

The only issue came during the third move when the 15-foot staging section caught a corner and bent, popping some staging tracks off the plywood. That took a bit to repair. Otherwise, trains were running within hours each time. From Shane:

> "When the layout finally arrived, we had high expectations – we'd seen it in photographs for years. But it absolutely exceeded them."

The layout now sits in optimal conditions – better lighting for photography, more space for operations, and improved accessibility for visitors.


Please
DO NOT
TOUCH

The first moves were about survival. This final move was about optimization. Once again, Pelle's modular design made it possible.

A STRATEGIC ASSET – MARKETING AND OPERATIONS

For ScaleTrains, the Daneburg Subdivision serves multiple roles: working layout, marketing platform, and primary photography location for product catalogs and advertising.

9. As the tracks round the bend out of Daneburg, this farm scene is in the foreground. Hundreds of hand-placed corn stalks fill the field in organized rows like you see standing in a real Nebraska field during the summer.

10. A farmer in a late-model Ford truck visits his cattle in this rural vignette. The wooded areas outside the fences, the pasture's mixture of grasses and shrubs, the progression from grass to brush at the edge of the woods, and the gravel near the gate all show the quiet power of the mundane. More of Pelle showing us the potency of understated modeling.

VIEW READER COMMENTS

Rory Schweighart, Lead Photographer on the ScaleTrains marketing team, explains:

> "What makes this layout so valuable is that it's right here in our facility. We can walk in whenever we need it, and the quality is exceptional. But honestly, that accessibility – having a world-class layout at hand – that's what changes everything for us."

That proximity streamlines their workflow.

But the layout's survival through three moves also validates Pelle's construction approach. Chris reflects on this:

> "What really stands out about Pelle's construction is the engineering quality. The benchwork is rock-solid – he used quality materials and built it to last. The way he ran the wiring through the modules was incredibly thoughtful; everything is organized and protected so that when we moved it, the electrical systems came through without issues. And the scenery attachment – he didn't just glue things down haphazardly. The trees, the structures, the details were all secured so they could survive the stress of moving. We've moved a lot of layouts, and most show damage. With Pelle's work, we arrive at the new location, and everything is still there, still intact, still beautiful. That's the mark of a true craftsman."

Using the layout for photography means navigating technical challenges. Pelle built it as a scenic layout first, not a photography platform.

Rory explains why photographing on a real layout still beats alternatives:

> "The reason we use the layout versus dioramas or green screens is, it's realistic. It's scale. There's lots of variety to choose from. I'm a purist – I'd rather shoot things as they are than fix them in post with editing. So I want to capture

> everything I can in camera and make it as real as possible using the real thing."

But Rory notes that realism comes with complications:

> "The scenes that are particularly difficult to shoot on this layout are most of them. It was built as a scenic layout first, not with photography in mind. The layout itself is tricky to photograph. But it's also very rewarding when you do find the shot."

Pelle designed scenes for visual impact and operational flow, not camera angles. Depth-of-field, placement, and lighting that works for the eye don't always translate through the lens.

Finding compositions that actually work requires patience and intimate knowledge of every inch of the layout.

11. While the grain elevator commands attention, Pelle's treatment of the much humbler Safety Kleen® chemical company is equally authentic. It's the kind of operation you'll find on the outskirts of any farming community, rendered with the same care and accuracy as everything else.

What makes those compositions succeed is Pelle's attention to weathering detail. The grain elevator shows concentrated wear exactly where workers would walk. Ballast looks like ballast – proper color, proper texture, proper distribution. Ties show creosote staining in realistic patterns. The shiny rail heads contrast with the rail weathering.

Rory notices these details through the camera:

> "It's the small things that make it look real. The weathering on the structures, the way the ballast sits, the polish on the rails – those details sell the illusion."

12. Tucked along the backdrop, this modest residential section of Daneburg completes the picture of a Nebraska town, with houses and yards to indicate that people live there.

VIEW READER COMMENTS

The layout proves that prototype accuracy and marketing value aren't competing priorities. When you get the details right, the photography becomes easy.

MODELING MASTERY – A DETAILED TOUR

The Daneburg Subdivision's footprint may challenge some modelers' assumptions about what's required to create an exceptional layout. Chris counters this:

> "It's a good size – 11 by 20 feet – not a huge layout by some standards, but not a basement empire either. It shows that a lot can be done in a modest space."

That philosophy of restraint extends to the design approach. Pelle didn't cram every possible industry or operational feature into the available space. Instead, he exercised discipline. Again, from Chris:

> "It's a good example of less is more. You don't need to cram an industry into every corner. Some people build that way, and that's fine – but this shows the value of simplicity. Do what needs to be there, nothing more. Nothing is in excess."

WEATHERING TECHNIQUE

The weathering technique builds up layers of color, texture, and wear that replicate specific prototype conditions.

Rail shows shine just on the railheads and grease or rust on the sides.

Ties exhibit gray weathering from creosote exposure and staining from decades of service. Concrete ties weather differently than wood, and this layout realistically shows both.

Ballast has proper color, texture, and distribution. It looks like ballast, not painted gravel.

13. Here's the alley nobody photographs. Behind the storefronts, where dumpsters sit and pavement cracks under decades of use, a cat pauses by the power pole. Pelle understood that a real town isn't composed only of showcase moments. It's also made of alleys and backside details that seldom get modeled as nicely as this.

VIEW READER COMMENTS

The grain elevator shows wear patterns concentrated where workers would have walked. Colors fade from sun exposure. Every detail suggests years of service.

Rory sees how this precision extends to every detail:

> "I admire his work and I'm in awe of what he's achieved. The cornfield alone is remarkable – the perfect rows, the tassels, the way he captures that agricultural detail. But what really gets me is how he extends that same precision to everything. He doesn't miss anything."

These details aren't just decorative – they're what make the layout work as a photography platform.

14. Another seldom-photographed backside view: gutters and downspouts, a power meter, another dumpster tucked against the building. Most modelers focus on the dramatic. Pelle models those extra little details that turn the mundane into a masterpiece.

Rory says:

> "When you're shooting scale, if those small details aren't there, you can tell it's not real. Pelle has them, and that's what lets you tell the story and make it convincing."

The modular construction itself reflects engineering thinking applied to art. Each section is self-contained, yet integrates seamlessly with the next. Wiring connections are standardized. Scenic elements break at natural visual boundaries.

Chris notes this approach offers possibilities beyond portability:

> "Because it's modular, there's real flexibility built in. We could theoretically expand it if we wanted to – I'm not saying we will, but the possibility is there. That's the beauty of the design: it gives you options. You're not locked into what exists today."

IN ACTION – OPERATING THE DANEBURG SUBDIVISION

The Daneburg Subdivision was designed to operate, and Chris tells us it does exactly that at Scale Trains.

> "The thing about Pelle's layout is that it was built to run trains. A lot of people build these beautiful layouts and they're afraid to operate them – they want to keep them pristine, as museum pieces. But that's not what Pelle intended. He engineered this layout to function, to actually

15. A maintenance access road runs alongside the right-of-way – a detail Pelle included not because it's dramatic, but because it's real. Pelle gives each scene room to breathe, which makes the place feel more lived-in. The backdrop integration is so seamless you stop looking for the seams!

> work as a railroad. And I think that's important to honor. When you run trains on it, you see why he made the design choices he did. The grades work, the transitions work, the operations flow naturally. It's not just a beautiful display – it's a functional railroad. And that's what makes it special. We run it regularly because that's what it deserves."

Watching a train traverse the Daneburg Subdivision reveals the layout's operational sophistication.

Chris walks us through the complete journey:

> "Leaving staging on the outer tracks, you head up to the upper tracks – the highline, closest to the backdrop. You pass a dilapidated barn beside a cornfield, trees, a crossing, cattle, and another field. The grade descends with a right-hand turn into a couple of fields – first soybeans with a farmer checking them in his red truck. After your first crossing and

16. A dirt road crosses the tracks at grade, with the maintenance road paralleling the tracks. The scenery has been modeled with such care that authenticity becomes effortless – more of Pelle's mastery on display.

> a cornfield, you continue the turn toward your first industry in Daneburg. Entering Daneburg proper, you navigate the grade crossing past several structures, then transition into a residential scene with picturesque Nebraska farmhouses. Another house with a red barn sits beside the third cornfield. After crossing the lift-out bridge again, you loop back along the lower level, snake under the bridge you crossed before, and return to staging."

The track work is exemplary – smooth, reliable, virtually silent. Turnouts operate precisely. Grades are manageable. Curves are broad enough to accommodate long trains without binding or derailments. Every operational element reflects careful planning and quality execution. Chris raves:

> "The track work is just exceptional. Pelle laid everything with such precision – the rails are perfectly aligned, the joints are smooth, and when you run a train, it just glides. The turnouts throw cleanly and consistently every single time with no derailments from sloppy work. The grades are well-engineered – steep enough to be interesting but not so steep that a train can't handle it. And the curves are broad and sweeping, so you can run a long consist through without any binding or issues. That's the mark of someone who understands not just how to lay track, but why it matters. Every decision Pelle made was about making this layout actually work as a railroad, not just look like one."

Operating the layout also reveals its versatility. It accommodates different operating schemes, from simple continuous running to more complex switching. The design supports both casual enjoyment and serious operational sessions.

Chris explains that completing the circuit brings your train back to where it began, with options for what comes next:

> "Rolling into staging, you can use the switches to route onto storage tracks, pull forward, and come to a complete stop. Or

17. A train exits staging onto the layout, being pulled by SD40-2s, the backbone of UP's locomotive fleet for decades. What follows in the rest of the photos is a complete tour of the layout, scene-by-scene.

18. The layout is basically flat just like Nebraska's Platte Valley. On the far side of the layout, the front track dips ever-so-slightly downgrade, and the rear track climbs ever-so-slightly upgrade. Even in flat river valleys there is some elevation change along the watercourses. So Pelle grounded his layout track routing desire for this bridge scene in geographic authenticity.

> if you want another circuit, stay on the main and keep going – as many times as you want."

FULL CIRCLE – A LEGACY THAT ENDURES

After several moves and thousands of miles, the Daneburg Subdivision will experience its most significant moment yet: presentation to the broader model railroad community at the 2026 NMRA National Convention in Chattanooga.

Many home layouts meet an unfortunate end – dismantled when their creators move, cut apart for salvage, or destroyed when circumstances change. The Daneburg Subdivision could have suffered such a fate multiple times. Instead, it thrives.

Chris reflects on what makes the layout's journey extraordinary:

> "What strikes me most is that this layout has managed to keep living. I've seen too many beautiful layouts meet an unfortunate end – dismantled, scattered, just memories. But this one has been fortunate. It's been well documented, seen by thousands of people, and it's going to continue to survive and be seen."

THE MODULAR DESIGN PHILOSOPHY

The modular design philosophy Pelle employed proved to be the layout's salvation. Chris explains:

> "This layout's design proves that the modular approach works. It gives you flexibility – all those countless hours of work you've invested can continue to live on. You're not locked into a fixed installation. Life changes. You might move in a few months, or your circumstances shift. Having that flexibility, not being anchored down to one location, is incredibly valuable. I think anyone building a layout needs to weigh whether that approach will work for them."

20. The curve continues through another stretch of fields, another road paralleling the track, but this time with a grade crossing. Though it's often tempting to make every layout scene distinct, Pelle understands that real rural landscapes repeat.

19. The track descends from the bridge into soybean country at the far end of the layout. A highway runs parallel, threading through the same landscape as is common in the Midwest. Here the layout reminds you of its purpose: moving freight through the American heartland.

THE LAYOUT'S FUTURE

The layout's story doesn't end with the convention. ScaleTrains' commitment extends beyond a single event. The Daneburg will continue serving its multiple roles: operational railroad, marketing platform, educational resource, and inspiration to visiting modelers.

Chris says ScaleTrains even plans to enhance the layout, while remaining faithful to Pelle's original vision:

> "We've been talking about adding scenery to the staging area – it's a natural canvas for that kind of work. Whatever we do there will honor Pelle's vision and become a seamless part of what he created. It's our way of adding to his legacy."

Chris reflects on his role in the layout's journey with characteristic humility:

> "I can't claim I built anything, but I was a steward of it, I guess. I helped take care of it, though multiple people have had a hand in maintaining it. I've only done a part of that."

21. Safety Kleen's parking lot marks the boundary where the train leaves open country and enters civilization. Pelle grounded the scene in geographic truth: Safety Kleen is a real Midwest company, the kind of operation you'd actually find on the edge of a Midwest town like Daneburg.

From Denmark to Utah to Tennessee, from one modeler's vision to a company's strategic asset, from private creation to public inspiration – the Daneburg Subdivision has completed a journey few layouts ever experience.

And this summer in Chattanooga, that journey comes full circle. ■

The Daneburg Subdivision will be on display this August at the 2026 NMRA National Convention in Chattanooga, Tennessee. For more information about ScaleTrains and the layout, visit scaletrains.com. To learn more about the NMRA National Convention, visit nmra2026.org. ☑

More photos of the Daneburg Sub! In this month's bonus extras, we've posted another 85 photos we took of this layout but did not use in the article.

22. Our train rolls past the grain elevator complex that makes Daneburg a place. Everything else on this railroad revolves around this impressive structure. It's the reason for the track and for the town – the place where commerce flows in and out. Pelle understood that a good layout needs an anchor point, and this is it.

24. Our train passes the old barn from [8] as it stands alongside a cornfield – decay and productivity occupying the same view. This is what real farming country looks like – an old barn that's still part of the working landscape, even as it ages.

23. The train heads back into rural Nebraska, and visible in the back is the track where we started [17]. We begin a second transit of the layout, this time on the front track. The concrete ties are common on the modern UP main.

26. The train passes under the bridge from [18], and heads into staging after one-and-a-half circuits. The layout does what Pelle designed it to do: move freight through a believable railroad world. Through several moves, the infrastructure held, the trains kept running. That's a layout design philosophy (TOMA) that proves a layout can endure. ☑

25. With the truck and cattle from the pasture scene of [10] in the background, our train rolls deeper into rural country.

THE DANEBURG SUB AS A TOMA POSTER CHILD

J. Fugate

The Daneburg Subdivision exemplifies the **TOMA** (The "One Module" Approach) philosophy that *Model Railroad Hobbyist* (MRH Media) has championed: design a home layout as module sections, build them to completion one or two at a time, then expand.

Pelle's 11 × 22 footprint is exactly that: several manageable, expertly executed module sections that accomplish what many layouts twice its size struggle to achieve.

The "One Module" Approach (TOMA) proves scope management is about mastery, not limitation. Focusing on building a small section exceptionally well rather than spreading effort across a sprawling empire, lets modelers create layouts with operational depth and scenic authenticity by starting small but thinking big.

There's a critical distinction separating Pelle's sectional layout design from what many modelers think of as "sectional construction." Too often, modelers build layouts monolithically – solid and permanent – with the design having places to cut it apart if needed for a move. When moving day arrives and they actually cut it apart, the structure often can't handle the stress. Joints fail, scenery cracks, wiring gets damaged, and what was supposed to be portable often ends up in the dumpster.

Pelle's approach is fundamentally different.

True sectional design means the layout's modules actually get disassembled and reassembled during construction to field-test that sections separate cleanly and reconnect reliably. This isn't theoretical modularity – it's a field-tested and validated design.

Pelle built the Daneburg Subdivision to come apart and go back together, then tested that capability repeatedly before the layout ever left Denmark. When Chris says the layout "came through without issues" after several major moves, he's validating engineering that Pelle stress-tested from day one. Pelle did not cross his fingers and hope for the best.

This philosophy is tailor-made for 21st-century modelers facing real constraints: relocation, downsizing, and space limitations.

The Daneburg Subdivision proves that starting small but thinking big isn't a compromise – it's a strategic advantage when combined with tested modularity. Build one piece to mastery, prove the module section concept works *and* prove it can move, then expand with confidence.

Pelle's design validates what we've always believed: the most successful layouts aren't necessarily the biggest ones. They're the ones built with intention, where every decision serves both beauty and function using proven methods. ■

MEET THE KEY FIGURES

Shane Wilson is Co-Founder and President of ScaleTrains.

When ScaleTrains acquired ExactRail and its TrainLife brand, Shane recognized the Daneburg Subdivision as more than a display piece – it represented an opportunity to provide a permanent home for a masterwork while gaining a strategic marketing and operational asset.

His leadership perspective frames the layout's role in ScaleTrains' identity and commitment to the hobby.

Chris Brimley serves as Project Manager at ScaleTrains and has been the layout's custodian through multiple ownership transitions and three major moves.

His technical expertise and intimate knowledge of the layout's construction, operational characteristics, and scenic details make him the go-to source on how Pelle's design choices have proven themselves under real-world stress.

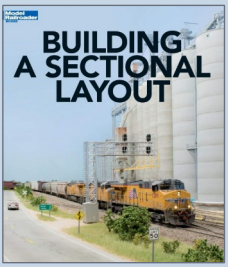
Chris has maintained the layout's integrity while ensuring it continues to serve its operational and marketing purposes.

Rory Schweighart is Lead Photographer on ScaleTrains' marketing team.

He works with the Daneburg Subdivision regularly, translating its scenic realism into product photography and catalog imagery.

Rory's perspective highlights both the challenges of photographing a layout designed for visual impact rather than camera angles, and why having a world-class layout in-house elevates ScaleTrains' marketing capabilities. ■

BUILDING A SECTIONAL LAYOUT: PELLE'S GUIDE TO MODULAR HOME LAYOUT DESIGN



The principles that allowed the Daneburg Subdivision to survive several thousand mile plus moves aren't secrets – Pelle documented them in *Building a Sectional Layout,* originally published by Kalmbach Books and now available through Firecrown Media.

The book presents a comprehensive approach to designing and constructing home layouts that can be disassembled, moved, and reassembled without compromising scenic or operational integrity. Pelle covers benchwork engineering, electrical system organization, scenery attachment methods, and the strategic thinking required to build a modular layout that can endure.

The Daneburg Subdivision proves the module section philosophy (which *MRH* calls TOMA) works for home layouts. Every design decision demonstrates the practical application of sectional layout principles – from the modular benchwork that survived shipping across the Atlantic, to the wiring systems that came through all the moves without failure, to the scenery attachment methods that kept structures and details intact.

When Chris notes that "most layouts show damage" after moving but Pelle's work "came through without issues," he's validating the engineering approach Pelle teaches.

For modelers considering their own layout, *Building a Sectional Layout* offers more than construction techniques. It presents a design philosophy that treats piecemeal

BUILDING A SECTIONAL LAYOUT CONTINUED...

design and construction as a feature rather than a problem.

Layout interests change, owners relocate, spaces evolve – Pelle's approach acknowledges these realities and builds resilience into the layout's architecture.

The Daneburg Subdivision's journey from Denmark to Tennessee proves that sectional design isn't a compromise. It's a preservation strategy that allows exceptional work to endure and find new audiences, exactly as it's doing this summer in Chattanooga. ■

Animate swinging engine house doors

1. Back in the 2020 *Running Extra* issue, I showed how to annimate this roll-up door. This time I show how to annimate swinging doors.

VIEW READER COMMENTS

Model Railroad Hobbyist | May 2026

Jean-Yves Mazzoleni motorizes engine house doors ...

This story began years ago when I built a locomotive shed. I wanted an animated system for opening and closing the door.

I started with an overhead roll-up version [1] that was the subject of an August 2018 article in *MRH*, and a YouTube video (www.youtube.com/watch?v=cwDqLw5YTCY).

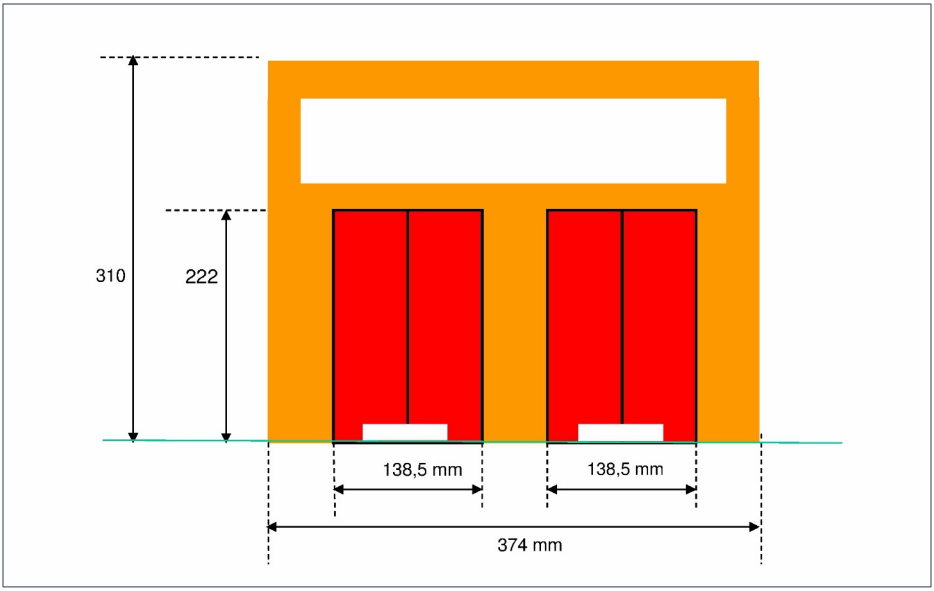
DESIGNING A NEW FRONT

I decided to make a new version of the animated opening with double swinging doors, which were much more common than my original roll-up door. Since my shed has two tracks, I needed two sets.

I rebuilt the shed opening with dimensions corresponding to my locomotives [2]. The old entry module was wider than the rest of the building, with an annex to the side of the roller shutter to house the motor and serve as a wire trace to pass the wires underneath the layout.

I decided to remove the small annex in my new design so that the entry module's width would match the rest of the building. This meant I had to find a new way to hide the wires.

I cut four identical doors from plywood. I preferred the simplicity of this solution to constructing them from scale lumber. Other alternatives would have been to buy Piko/Pola doors or to 3D print them.



2. Draft of the new shed front with doors.

I cut out the doors, remembering the clearance for the rails. I painted them, and drew lines representing boards, to dress-up the doors.

ACTUATION

Model airplane servos move the doors. I purchased a set of five SG90 micro servos. Though reasonable for the required power, I found them too small for my clumsy hands. The larger MG996R servos were easier to handle, so I purchased four to use instead [3].

3. Servos finally selected.

Next, I positioned the servos so the axis of each aligned with the axis of door rotation.

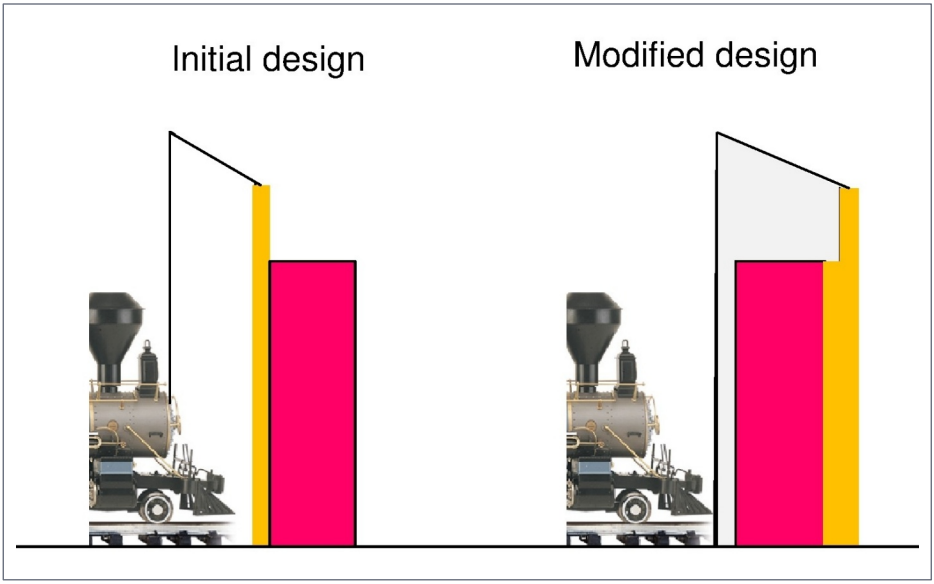
I continued construction, and modified the door position to accommodate the servos. I fixed the doors with a set of mini hinges [4]. To my surprise! The doors then opened inward instead of outward as initially planned.

This hid the servos' actuators, but I had to extend the depth of the "door module" building to compensate for the inward door swing [5]. This extension required cutting new boards.

CONNECTING THE SERVOS TO THE DOORS

I attached a wood block with two 3mm diameter holes to the top of each door. I inserted a screw into the hole that is 20 mm away from the hinge axis [6, 7].

4. Doors installed on front structure as viewed from inside the building.



5. The doors open inside the building, requiring the door module to be deeper than originally planned.

6. Screws used to connect the doors to the servos.

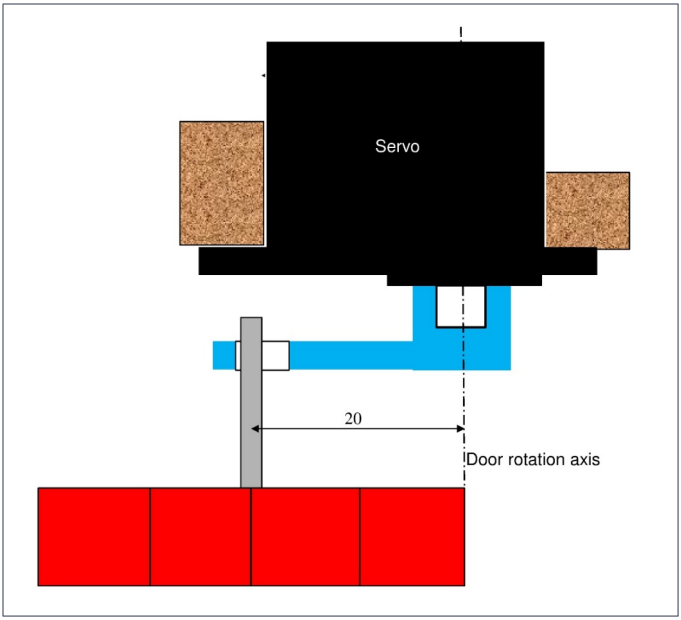
I attached one strip of wood across the back of the facade and another toward the back of the entry module, affixed to the building's side walls. I spaced them for mounting the servos [8, 9].

I installed the servos in pairs so that I could disassemble the one pair of doors without touching the other. This proved useful.

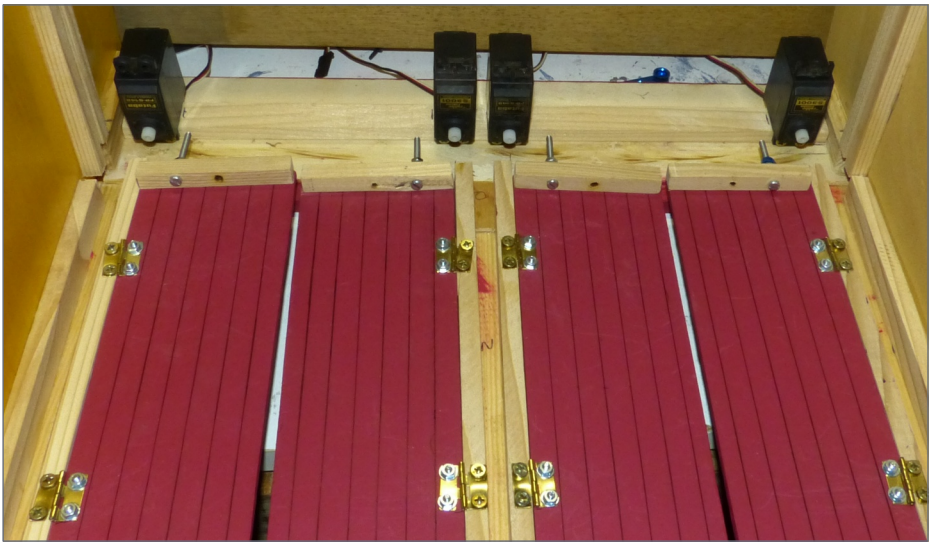
After several tests with the servos' plastic parts, I decided to purchase aluminum arms instead.

The length of these 27mm arms corresponded to my doors, but the holes were too small for the 3mm screws I was using. I drilled a larger

7. The building takes shape.

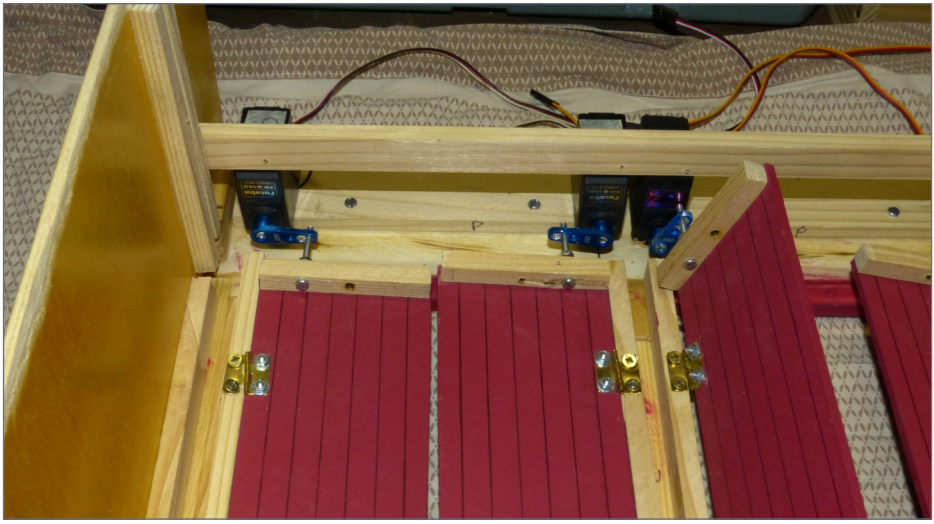


8. Servo installation drawing.



9. Servos installed and fastened to the strip attached to the back of the facade.

hole between the outer two holes, which increased the radius of the mount for greater movement [10].



10. Everything is in place: servos connected to doors, servos fastened to support strips.


J. Fugate

CONTROLLING THE SERVOS

Using the ArCoMoRa DCCNext to control servos (typically for turnouts or uncouplers) involves connecting your servos to the board's ports and configuring them via the MARDEC (Multifunctional ARduino dcc DECoder) software.

How it works

The DCCNext acts as a stationary decoder that translates DCC commands from your command station into pulse width modulation (PWM) signals that control servo angles.

- **Wiring:**
  - Servos connect to the Dupont pins on the DCCNext board.
  - Power: While the board itself can be powered by your DCC bus or an 8-16V source, you must connect a separate 5V power supply to the dedicated servo power terminals to handle the current draw.
- **Configuration with the MARDEC software:**
  - Setup is done using a serial monitor (like PuTTY or the Arduino IDE's monitor) through a USB connection to a PC.
  - It uses a “question and answer” interface, so you don't need to write code.
  - You assign a DCC address (1–2000) to each servo port and can “tune” the rotation speed and stop positions (angles) for the “Thrown” and “Closed” states.
- **Operating modes**
  - Normal mode: Responds to DCC commands from your layout's throttle or software like JMRI.
  - Manual/input mode: You can also connect physical buttons or toggle switches to input ports on the DCCNext to control


J. Fugate

CONTROLLING THE SERVOS *CONTINUED ...*

servos manually without a DCC throttle.

Key features for servos

- **Frog polarization:** The board can be configured to trigger PowerNext relays halfway through a servo's rotation to switch turnout frog polarity.
- **Bounce effect:** You can add a "bounce" at the end of the rotation, which is great for realistic semaphore or gate movement.
- **Electrical isolation:** The DCC input is optically isolated to prevent electrical noise from your track from interfering with the servo signals.

Detailed assembly and mounting instructions are available on the ArCoMoRa website (www.arcomora.com/dccnext). ■

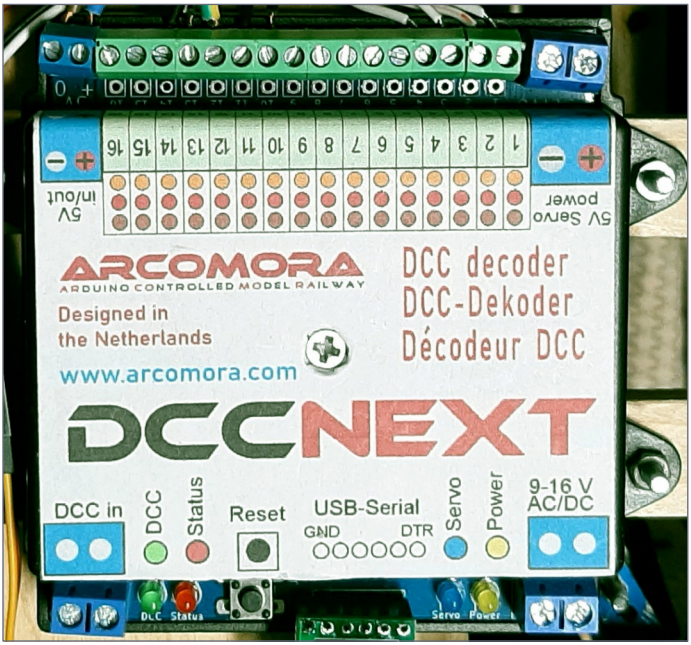
SYSTEM CONTROL

The next challenge was controlling the servos. On the advice of my friend Joël, I used a DCCNext box from ArCoMoRa (www.arcomora.com). Based on Arduino, the DCCNext is designed and manufactured by Dutch engineer Nico Teering.

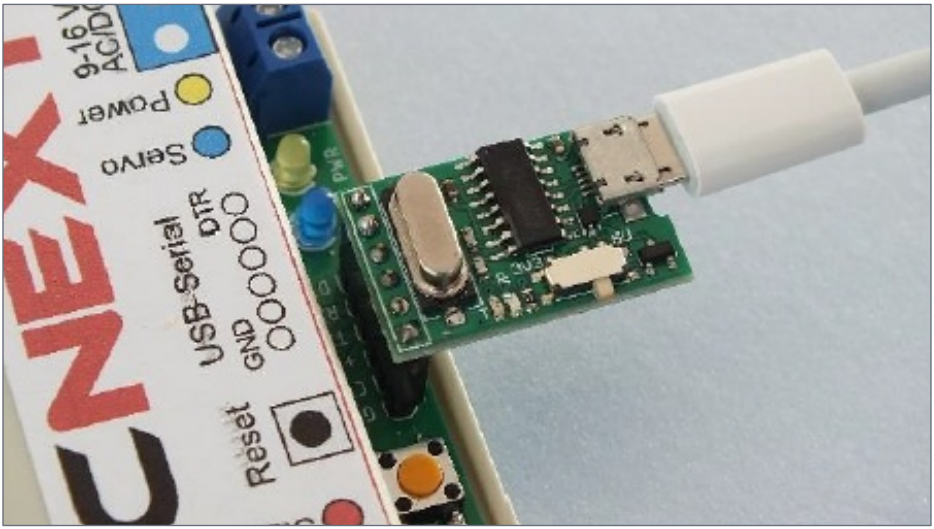
This device [11] is specifically designed for model railway applications. ArCoMoRa stands for **Ar**duino **Co**ntrolled **Mo**del **Ra**ilway. The DCCNext box is associated with MARDEC configuration software, which is well-designed for simplified use.

The DCCNext box has an optional USB interface [12] that allows it to be connected to a PC for configuration. If you use several DCCNext units, you can configure them all with the same USB interface module.

MARDEC is designed to work with Windows 64-bit or 32-bit systems. No code to write – just a very simple interface in a window.



11. DCCNext close-up.



12. USB option linking DCCNext and home PC.

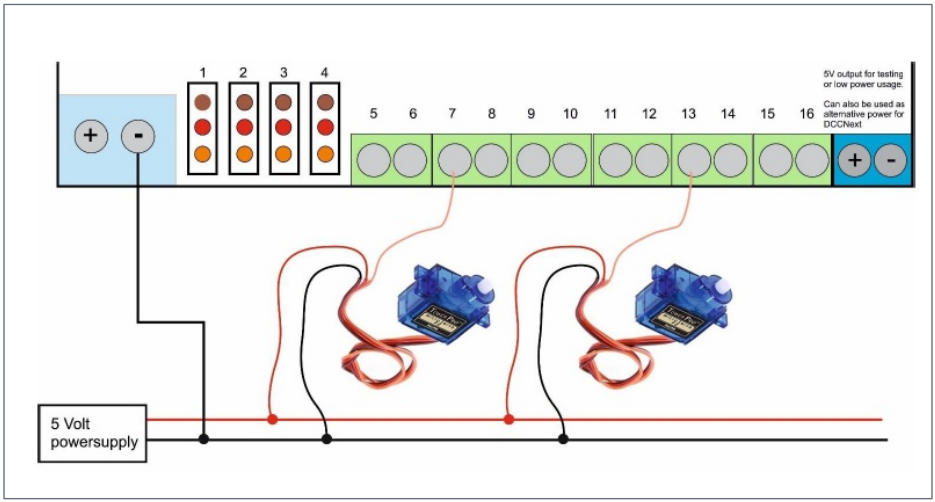
The instructions provided in English by ArCoMoRa for using MARDEC are very explicit, but you still need to understand its mode of operation, which is simple in all cases.

This enclosure has 16 connection ports that can be configured to either receive a command or to generate an action on a device (servos as in my case, or lamps, relays, etc.).

The DCCNext can be driven by DCC. As an old-fashioned operator, I chose simple switches to control the doors.

DCCNext can do many things on our railroads. My application is very simple when compared to its capabilities. Several DCCNext enclosures can be associated in a layout control system.

In my case, I selected the version with screw-type connections on the DCCNext for the four servos. The electrical power required meant grouping the four 5V feed lines together, and the same for the 0V ground lines. Then I needed to connect the servos' common wire ground to the DCCNext ground on the appropriate input [13].



13. Servos connected to DCCNext, showing the additional connection to DCCNext ground.

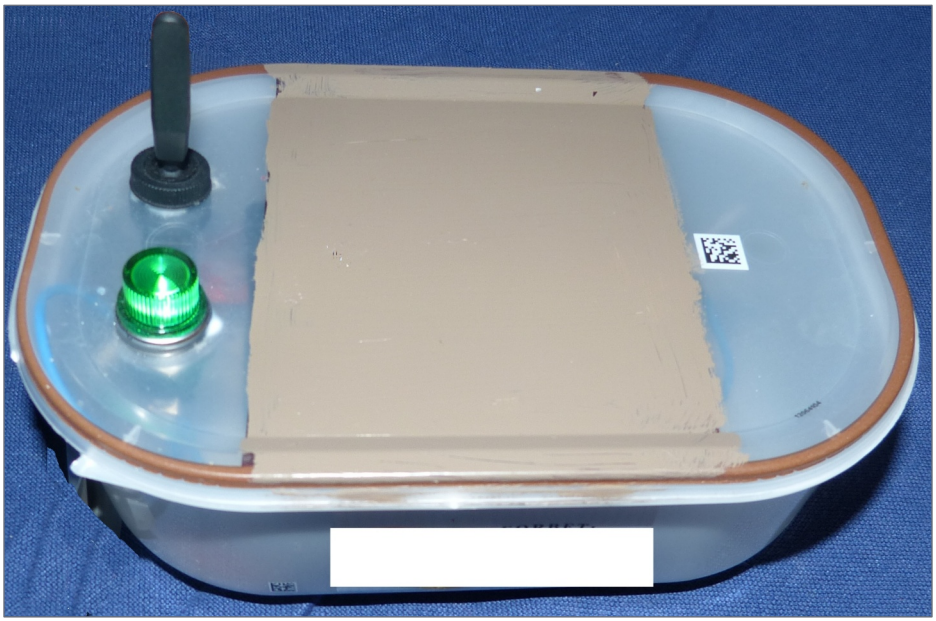
On my friend Joël's advice, I used two separate power supplies: one to power the DCCNext box, and one to power the servos. This eliminates the risk that servo current peaks could disrupt the operation of the DCCNext microcomputer. I used an old smartphone charger and a 6V battery for the servos [14].

DCCNEXT & MARDEC CONFIGURATION

To manage this configuration, I created an allocation table of the box terminals and communication ports [15].

Configuring servos is straightforward, following the procedure provided by Nico Teering in the MARDEC manual:

- Connect the servo to the DCCNext, and set the angle to 90 degrees with the 9-command.
- Issue the C command to one corner.



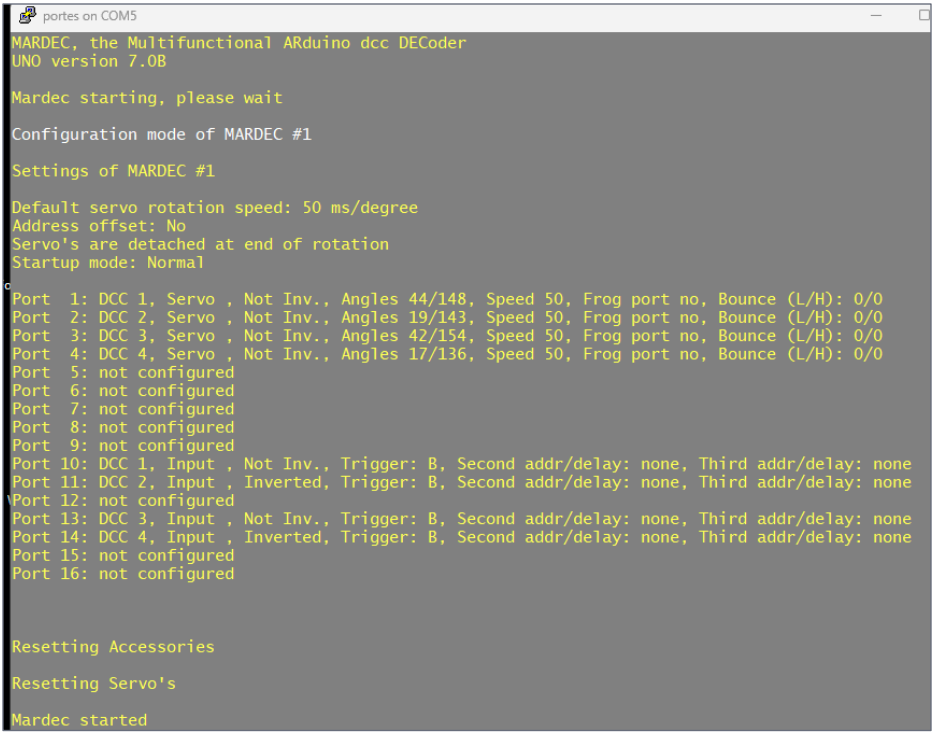
14. This 6V servo supply box houses the battery.

- Use the + and – commands to correct the angle as desired.
- Issue the C command to the other corner.
- Adjust this corner as well.
- Check whether the servo position corresponds to the symbol on the control panel/program. If wrong, invert the servo's positioning in the code.
- Exit with <E> to save the settings.

Here is my configuration summary as shown in MARDEC [16].

DCC adress	Dcc Next port number	DccNext Inputs Description
	+	+ Unused power inlet for servo
	-	- Gnd servo power box link
1	1	Servo door 1 / instruction signal
2	2	Servo door 2 / instruction signal
3	3	Servo door 3 / instruction signal
4	4	Servo door 4 / instruction signal
	5 up to 9	
1	10	instruction signal / door 1 by Dccnext
2	11	instruction signal / door 2 by Dccnext
	12	
3	13	instruction signal / door 3 by Dccnext
4	14	instruction signal / door 4 by Dccnext
	15 up to 16	
	+	DccNext Power inlet 5 VDC
	-	DccNext Power inlet Gnd

15. Port allocation table for DCCNext configuration.



16. MARDEC configuration.

I found a speed of 50 milliseconds/degree instead of the default 25 milliseconds/degree to be the right speed for door movement. A trigger B is mandatory (lesson learned).

The door movement control is initiated with an SPDT (or one side of a DPDT) switch. On one terminal is 5V, on the other terminal, ground [17].

For each set of two doors, two input wires come out through the main connector. I control one pair of doors with a single switch.

Everything is now in place [18]:

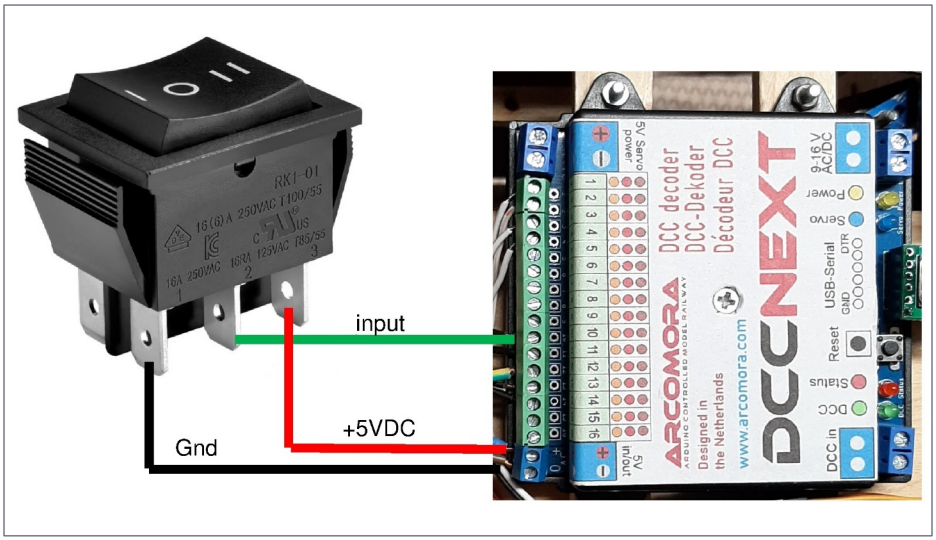
The control box [19] is ready and powered:

INSTALLATION ON MY LAYOUT

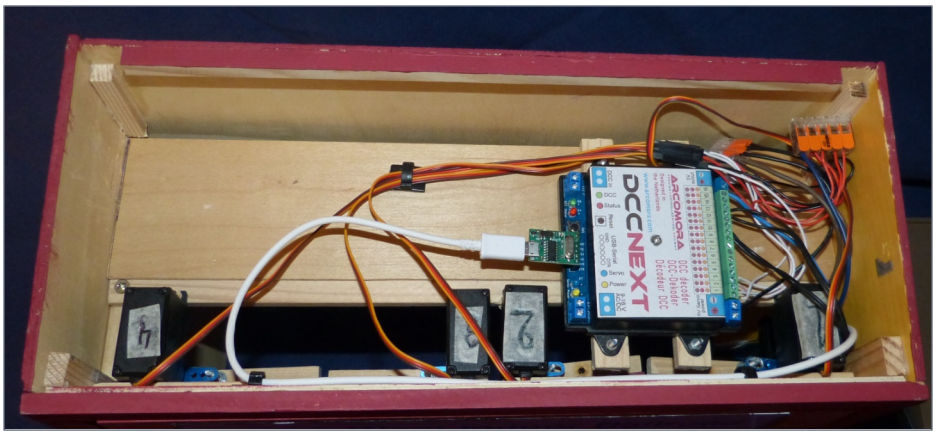
My layout is dedicated to freight operation. Nearly all my locomotives and four-axle wagons stay on the rails, so I have many sidings. I don't have scenery; I am only interested in structures directly linked to the railroad.

The DC and DCC control units and all the switch control boxes are installed in a central location. I wanted to install the two power sources and the door control box for the shed in this area, which will require running six wires under the layout, a length of three meters each [20]. I chose a large wire gauge to avoid excessive voltage drop.

I chose a general connector to gather all the cables to the building. In the previous version with the roller door, I had a simple 10-wire terminal strip, which was inconvenient to disassemble and reconnect. Despite being large, this main connector was very easy to use, required no soldering, and had clearly identified connection points [21].



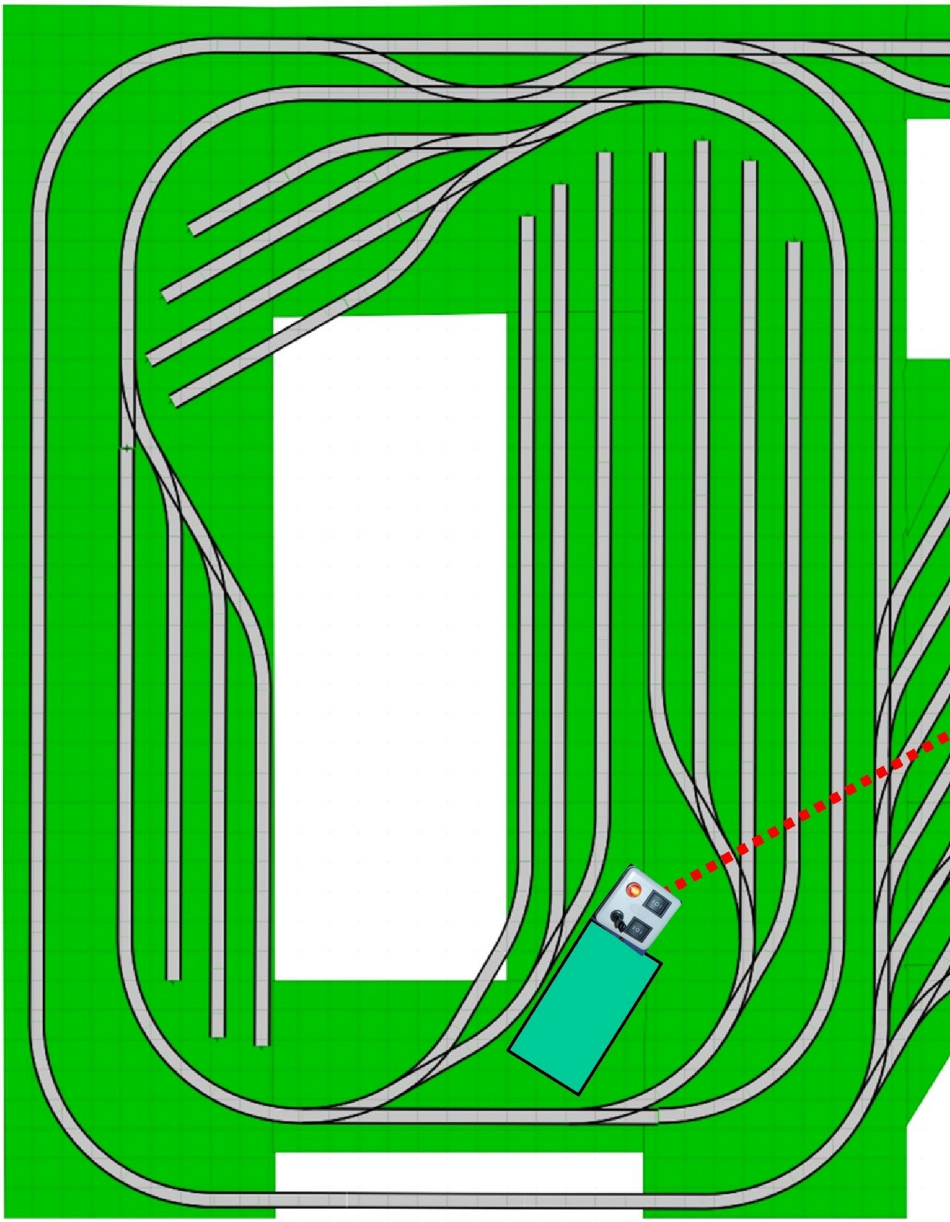
17. Switch wiring connection with DCCNext input port.

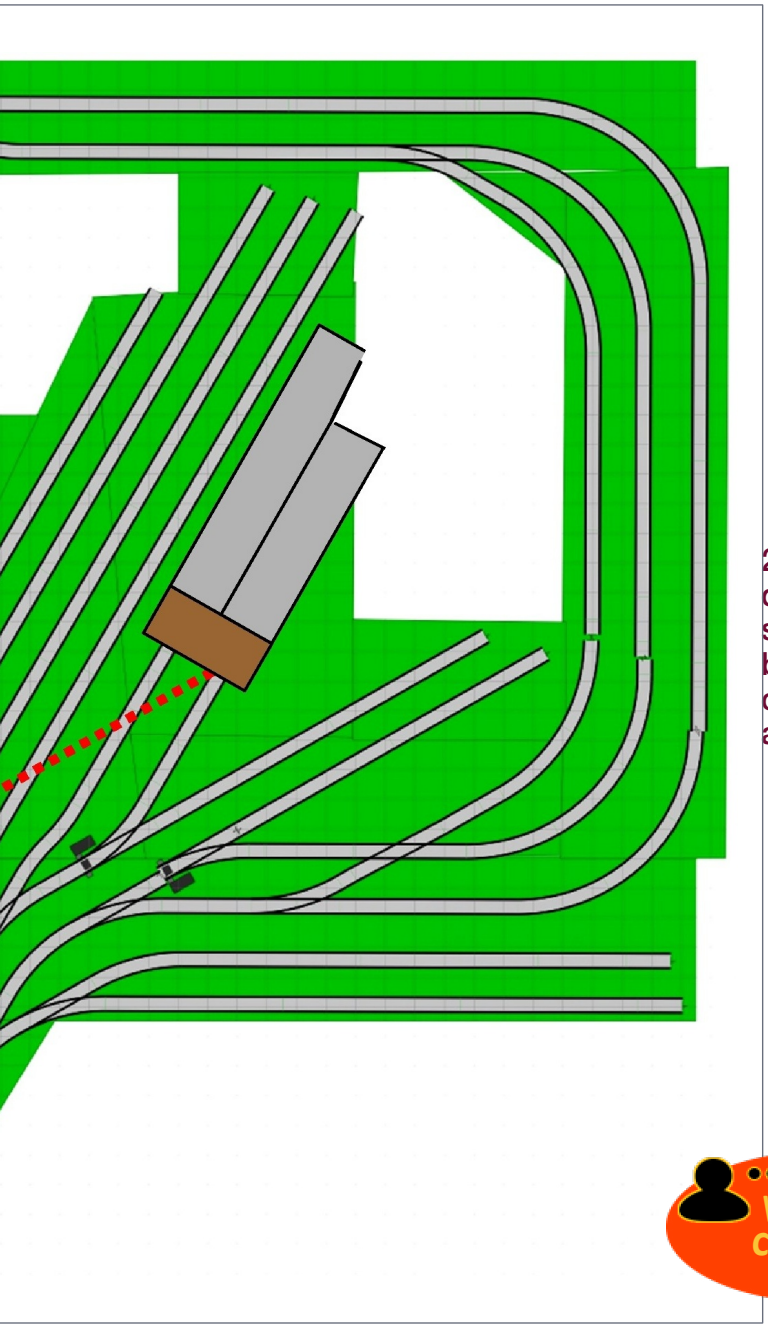


18. DCCNext with associated wiring installed in the building.

19. Control box with the two rocker switches. Each controls one pair of doors.

Please take time to rate the articles so we can bring you more great content!



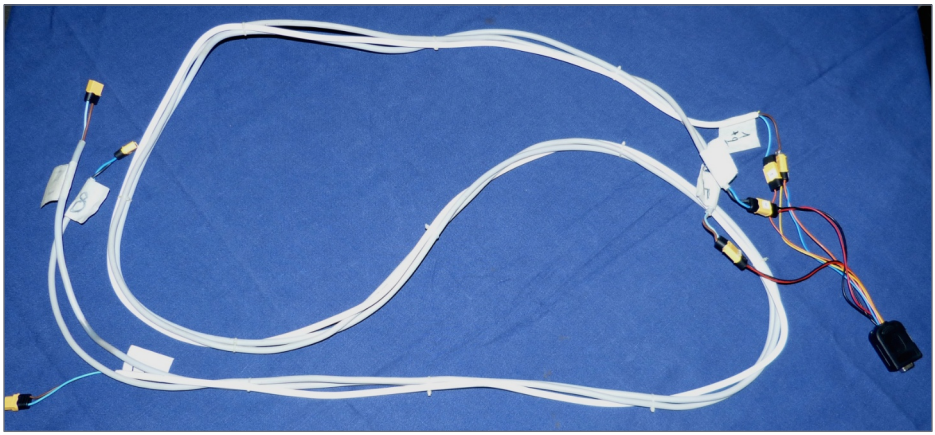


20. Layout drawing showing wiring between main control area and shed.

VIEW READER COMMENTS

To further simplify under-layout work, I divided the wire into a dozen wire pairs, and labeled each. I passed the wires through the layout surface using two-wire disconnects [22].

21. Main connector.



22. Wire bundle for installation underneath the layout. I have labeled the wire pairs, and everything has been fitted with two-wire connections for easy installation under the layout.

You can see this door assembly running in the following video on my YouTube channel (www.youtube.com/watch?v=m3c711YZMpo&t=44s).

CONCLUSION

It looked like a quite simple project: four doors, four servos, one DCCNext with no code writing. Although this project was far more complex than anticipated, the animated doors on my locomotive shed are well worth the effort. ☑

23. Door building with output cables, main connector, and USB connector.

24. Both versions of shed doors.

JEAN-YVES MAZZOLENI

Jean-Yves lives near Toulouse, France, in the heart of the European aerospace industry where he made his career. Now retired, he is working on his indoor railroad started in 2013, one of his main daytime pursuits.

He has already written three articles for *MRH:* one about an animated coaling station, another about an engine shed with a roll-up door, and one about a 3D-printed Schnabel car.

USA Trains are his preferred brand. He started with Western trains, particularly Bachmann 4-6-0 steam engines. His

VIEW READER COMMENTS

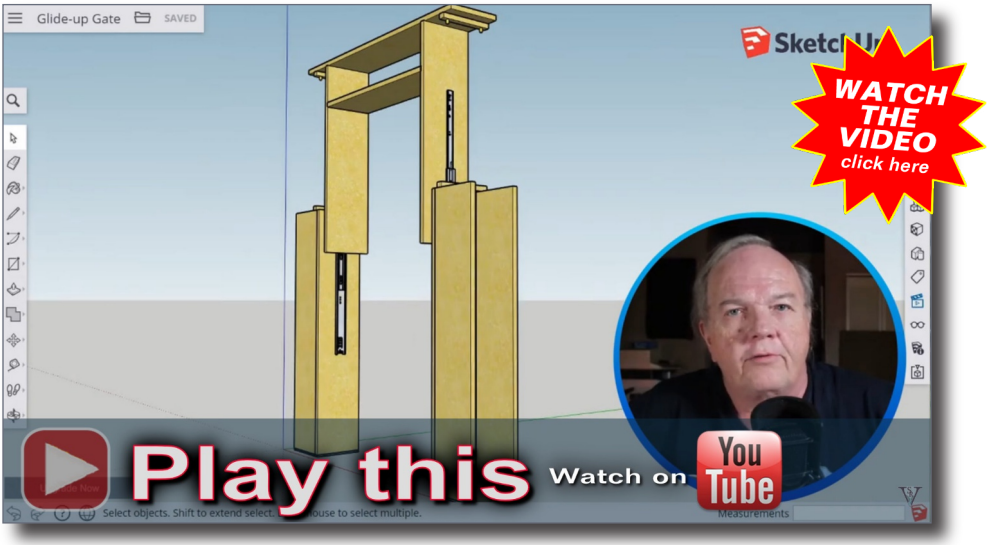
25. Two locomotives coming out of the shed.

other hobby is video, through a dedicated home cinema room and his YouTube channel.

He has visited the USA twice with his wife Florence, one West Coast trip and one East Coast trip. He has two sons: Matthieu, living in Canada, and Jean-Baptiste, living in Toulouse after 11 years in China. ■

Savvy Modeler Online

Get more articles like this
GIVE IT A LIKE



Build a glide-up layout room gate

YouTuber John M. of the **Schuylkill River Valley** channel discusses the struggle he had deciding how to best provide access to his layout room without a duckunder. He also hates swing gates and drop gates.

VIEW READER COMMENTS

One day while getting tools from a drawer the idea hit him: why not use drawer slides to make a smooth "glide-up" gate that latches in place when up. John does a first rate job of describing the design using sketch up and video footage from his layout room. An excellent video! ☑

GREAT MODELER VIDEOS ON THE WORLD WIDE WEB

MAY NEWS column

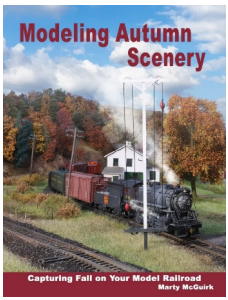
JEFF SHULTZ AND RICHARD BALE REPORT THE LATEST HOBBY INDUSTRY NEWS ...

VIEW READER COMMENTS

NEW PRODUCTS FOR ALL SCALES

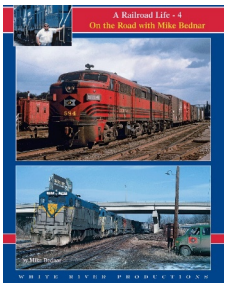
AK Interactive has released a new range of adhesives, including Low, Medium, and High-density cyanoacrylate glues in the Magnet line, the Wizzer fast setting low density cyanoacrylate glue, Flash accelerator for cyanoacrylate glues in both liquid and spray, Storm spray adhesive, Cyclops UV glue, a UV flashlight, and Eraser cyanoacrylate glue cleaner. MSRP for these products is between 3.95€ and 12.95€.

Info: ak-interactive.com



New from **Artisan Rail Media** is *Modeling Autumn Scenery, Capturing Fall on Your Model Railroad* by Marty McGuirk. A full-color guide to realistic techniques for model railroaders and diorama builders, the book draws on the author's years of modeling experience. The book covers Color Balance, the art of selecting and layering autumn colors for a realistic

palate; Tree Modeling, techniques covering distant background treelines to individual foreground trees; Ground Cover, detailing methods of creating fields, pastures, and the forest floor; and Scene Planning, building a unified look to capture the specific feel of the fall harvest. 100 pages, available from the publisher. Price is $29.95.
Info: www.artisanrailmedia.com



New from **White River Productions** is *A Railroad Life: On the Road with Mike Bednar,* Volume 4. Beginning his railroad career in the 1960s on the Lehigh Valley and continuing with Conrail and the Reading & Northern into the 1980s, author Mike Bednar dispatched busy mainlines, handled heavy tonnage over mountain grades, and lived with the sights, sounds, and people of railroading in the Northeast. Illustrated with 196 color photographs and two maps, the book brings together Mike's articles from Trains & Railroads of the Past issue 2 through 13. Hardcover, 8 ½ x 11, 128 pages. Price is $70.
Info: shop.whiteriverproductions.com/products

O SCALE PRODUCT NEWS

Bachmann has released several new products in On30 gauge celebrating the return of steam to the narrow gauge East Broad Top Railroad in central Pennsylvania. The first is The Rockhill Limited train set, which includes a 2-6-0 locomotive, a coach, and a combine, with cars featuring lighted interiors. A 56″ x 38″ oval of Bachmann E-Z Track and a power pack with speed controller are also included. MSRP is $549.

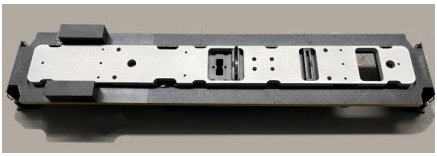
The East Broad Top – Freight train set includes a 2-6-0 locomotive, tank car, two-bay steel hopper with removable coal load, and an 18′ cupola caboose. The same oval of track and power pack as the Rockhill Limited are included. MSRP is $549.

East Broad Top rolling stock includes 2-bay steel hoppers in two-packs. Two paint schemes are available. The models include E-Z Mate Mark II couplers, Vulcan trucks with see-through sideframes, and blackened RP25 contour wheels. MSRP is $164 per two-pack.

Arriving soon are East Broad Top 3-bay hoppers with removable coal loads featuring new and existing tooling. Like the 2-bay hoppers, they feature E-Z Mate Mark II couplers and blackened machined RP25 contour wheels. MSRP is $93 per car.

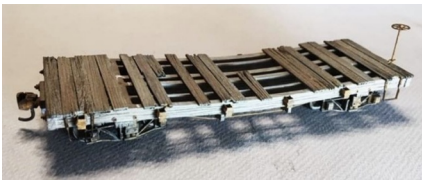
Also coming soon is an Old Time Bobber Caboose decorated for East Broad Top #27. Info: shop.bachmanntrains.com

---



FineScale360 has released a metal “frame saver” for the Weaver RS3 in O scale. The machined aluminum alloy frame saver bolts directly to the plastic frame and eliminates sagging or flexing. No modification to the original frame is needed, and replacement motor mount brackets and mounting hardware are included.
Info: finescale360.com/shop

New from **Frenchman River Model Works** are two On3/On30 1:48 scale car kits. The first is a Side Dump Rock Car kit consisting of 22 resin parts, styrene, and wire. The car can be assembled so that the side dump works. The finished kit measures approximately 4″ x 1.75″. Couplers and trucks are not included. The kit is priced at $54.95.



The second car is a Swayback Flat Car, inspired by John Allen and the Gorre and Dephetid RR. The swayback is cast into the car, which consists of seven resin parts, 12 metal stake pockets, a brake wheel, hex bold heads, lumber, wire, and other parts. Trucks and couplers are not included. The kit is priced at $54.95.
Info: frenchmanriver.com

Lines West Products has announced several upcoming O scale projects, including a MILW/ DSDX 40′ insulated boxcar as built with 4′ swinging doors, the same car with a 10′ plug door, and three rebuilt versions with an 8′ 2″ plug door.

Another announced model is the Western Pacific 1916 40′ Pullman outside braced boxcar, the WP boxcar configured for plaster loading and with AB brakes, and the WP boxcar configured for storing materials.

A 40′ Western Pacific Pullman stock car has been announced in several versions, with a metal roof and KC brakes; a wood roof,

wood number boards, and KC brakes; wood roof, wood number boards, and AB brakes; and metal number boards and AB brakes. Info: lineswestproducts.com

---

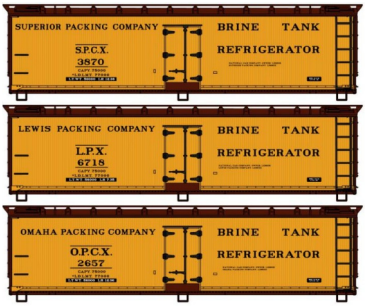
Lionel has announced a new run of the O scale Union Pacific 4-8-8-4 Big Boy locomotive in several new and fantasy paint schemes called Visions. Different versions of the locomotive have an oil or disappearing coal tender. The #4014 250 Tour edition depicts the locomotive as it is decorated on its coast-to-coast 2026 tour, complete with an eagle ornament and user applied flags. The American Freedom Train Vision of #4014 has it equipped with removable smoke lifters, the eagle ornament, and a red, white, and blue paint scheme that resembles the one SP #4449 wore as the American Freedom Train locomotive.

The #4014 is also available with an oil tender in a stock freight locomotive scheme with removable smoke lifters, and #4004 includes the coal tender, no aftercoolers, and matte finished and darked rods as it might have appeared in the 1940s. #4018 is available in a Vision based on the Union Pacific '49er paint scheme of brown, red, and yellow, also with the removable smoke lifters. The Lionel Lines Vision Big Boy #4884 includes US flag illustrations painted on the removable smoke lifters.

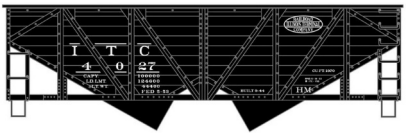
A Lionel Store exclusive Lionel Lines Vision #2026 includes a gold and blue paint scheme and slightly different US flag illustrations on the smoke lifters. A Pilot Vision #9999 appears unpainted, in raw die-cast metal with brass details. X1225 is the

Christmas Vision Big Boy in green, red, and gold. Finally, the Polar Express Vision Big Boy shares the X1225 train board with the Christmas locomotive and is in a light blue and maroon paint scheme. A minimum curve of O72 is required, and the locomotives feature a 3-speaker sound system. The oil tender models retail for $2,899 and the coal tender models retail for $2,999.
Info: www.lionel.com

HO SCALE PRODUCT NEWS



Accurail's announcements for the August 2026 production run includes three private owner packing company 40′ wood reefer kits, sold singly or as a set. The three cars are decorated for Superior Packing Company/SPCX, with a reweigh date of 12-36, Lewis Packing Company/LPX, with a reweigh date of 7-35, and Omaha Packing Company/OPCX, with a reweigh date of 12-36. The three-pack retails for $67.98 with singles priced at $22.98 each.



A 50-ton wood-side twin hopper kit decorated for Illinois Terminal/ITC includes a built date of 9-44 and a FED date of 5-53. The markings state it can contain 1970 cu. ft. of material. MSRP is $20.98.

A 100-ton 2-bay ACF Center Flow covered hopper kit decorated for Delaware & Hudson/D&H has a NEW date of 6-66 and a capacity of 3200 cu. ft. MSRP for the kit is $22.98.

A 50′ welded-side steel boxcar kit with a Superior door is also part of the August production. Decorated for Western Pacific/WP, it features a Built date of 6-55, a capacity of 4853 cu. ft., and "equipped with DF-2 Loader" markings. It features low ladders and brake wheel and will have roller bearing trucks. MSRP is $21.98 for the kit.

A 50′ exterior post steel boxcar kit decorated for North Louisiana & Gulf/NLG features a NEW date of 12-76. The Plate C boxcar features a Youngstown door, short ladders, and roller bearing trucks. MSRP is $21.98.
Info: accurailinc.com

Now in-stock at **Bachmann** is the USRA 4-6-2 Light Pacific in HO scale. While the Pacific wheel arrangement originated in the very early 1900s, the USRA was formed in the WWI period, designing standardized locomotives in several wheel arrangements and weights that lasted until the end of the steam era. The Bachman Light Pacific includes directional lighting and an 8-pin DCC plug. Headlight and smokebox configurations are road name specific. Road names and numbers available are Atlantic Coast Line #1528, Baltimore & Ohio #5223, and Santa Fe #1344. MSRP is $419.
Info: shop.bachmanntrains.com

Black Cat Publishing has released a 3D printed kit of a Canadian Pacific Railroad Horse Car. Available with either AB or K-brakes, the kit

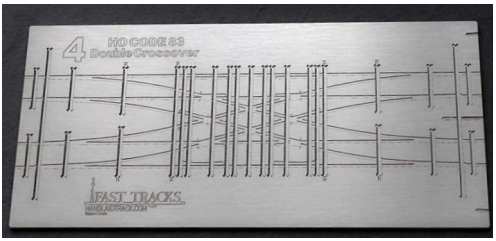
consists of 3D printed parts, etched parts, and decals. The modeler must supply trucks, couplers, and wire. The cars are priced at $75 each.
Info: blackcatdecals.com

Bowser has announced a second run of the HO scale Alco C-415 locomotive. A 4-axle center-cab locomotive producing 1,500hp, the C-415 was in production from 1966 to 1968, with a total of 26 locomotives being built. Road names and numbers in this run are Alco Demonstrator #415, Burlington Northern #4010 and #4011, Columbia & Cowlitz #701 in both the 1970s green and 1980s blue paint schemes, Ohio River Terminal (ex-BN) #4010, Port of Tillamook Bay #701 and #702, Rail Car America #423, Southern Pacific #2403, #2404, #2407, and #2408, Spokane Portland & Seattle #100 and #101, (What if) Belt Railway of Chicago #550 and #551, (What if) McCloud River #36 and #37, (What if) Pennsylvania #2460 and #2461, Generic black, Generic red, gray, and white, and Generic yellow and black. The Analog DC version with a 21-pin DCC plug is priced at $239.95 and the DCC/Sound version with a LokSound V5 decoder is priced at $339.95. Preorders are due 6/17/2026 with delivery in January 2027.
Info: bowser-trains.com

Broadway Limited has announced a new production run of the die-cast HO scale EMD SD70ACe model, available with Paragon4 sound/DC/DCC or as Stealth DCC-ready equipped with a 21-pin DCC socket and 8Ω speaker. Road names in the run are BNSF, CN (EMD demo patch),

Progress Rail, EMD Demo, KCS Heroes, Norfolk Southern office car specials Birmingham & Atlanta, UP MoPac Heritage, US Navy Fantasy, and USAF Fantasy. Trainworld Exclusives: WWII fantasy "Dallas Darling," Milwaukee #151 Hiawatha Fantasy, and Christmas Fantasy. Hyacinth Models Exclusive: Rio Grande 5-stripe scheme. Hyce Trains Exclusive: "Full Send" 5-stripe scheme. The models weigh 1 lb 15 oz. with an MSRP of $449.99 for DCC/Sound and $359.99 for the Stealth DC Ready version.
Info: broadway-limited.com
Info: www.trainworld.com
Info: hyacinthmodels.com
Info: hycetrains.myshopify.com/collections/pre-order

ClassOneModelWorks.com is taking preorders for a PS 3000CD two-bay covered hopper. Produced between September 1977 and April 1982, railfan.net lists only 1,200 built for five original railroads and the Pullman Transport Leasing Company. Mergers added four more railroads to the list of owners. Road names in the initial release are BNSF, Conrail, CSX, Louisville & Nashville, Missouri Pacific, MP/UP merger, Norfolk Southern, Santa Fe, Seaboard Coast Line, and Southern. Multiple numbers are available for all road names. Cars have road name specific details, with 38 versions available. In production now, the cars are expected to arrive in August 2026. MSRP for the PS 3000CD is $69.99.
Info: classonemodelworks.com



Fast Tracks has announced a new HO scale #4 double crossover fixture. A single-piece design, the entire crossover can be built as a single unit

instead of needing to build it in halves as with the higher frog numbers. Like other Fast Tracks crossover fixtures, it can also be used to build single crossovers and individual left- and right-hand #4 turnouts. A free matching printable tie template is available to download.
Info: handlaidtrack.com

Jackson Railcar has announced it is taking preorders for the Trinity 5239 3-bay covered hopper. With several horizontal ribs on the hopper body, it is one of the most distinctive covered hoppers in service. First entering service with Union Pacific in 2021, it can be found in both unit trains and mixed manifest service. The model is available with 12 road numbers in three UP reporting mark paint schemes and one CMO reporting mark scheme, with six additional road numbers available in a separate CMO scheme. Preorders are open through June 1st with an expected arrival date of first quarter 2027. MSRP is $54.95.
Info: www.jacksonrail.com/trinity-5239

Kadee's car of the month for April 2026 is a PS-2 2-bay covered hopper decorated for Frisco. With a new date of 12-58, the car is equipped with plain bearing trucks. MSRP is $46.99.
Info: www.kadee.com

Lionel has released the Spring 2026 edition of the HO scale products catalog. New products include America250 paint schemes and collectables, new tooling searchlight, exhibition, and

crane cars, and new collectible paint schemes. Info: catalogs.lionel.com/2026/HOSpring

---

Moloco is taking pre-orders for what they are designating as an ACF-EP-USRE double plug door RBL boxcar. The 50′ car is being produced in versions with both an overhanging and a non-overhanging roof. Road names for the initial release are Burlington Northern, USLX-Canfor, Conrail, USLX-Dresser, Detroit Toledo & Ironton, EELX-Evans, USLX-Evans, Green Bay and Western (two schemes), Grand Trunk Western, and an LRLX patch scheme. Both versions are also available as an undecorated kit. Based on Moloco's information, many of the cars were delivered in the late 1960s, with repaints occurring beginning in the late 1960s and through the 1970s. Price has not been announced. Info: www.molocotrains.com

---

Rapido Trains has announced pre-orders for an HO scale EMD SD70MAC in both the flat radiator Tier 0 and flared radiator Tier 1 styles. Railroad specific modifications, such as the Eco-Trans Auxiliary Power Unit on units ordered by the CSX, Head End Power (HEP) units and winterization hatches used on the Alaska Railroad units, and the many modifications needed for Metra's SD70MACH locomotives are included.

Other upgrades have resulted in CSX and KCS SD70MACe locomotives having a raised dynamic brake hatch.

Railroads in the first release include Alaska Railroad, Burlington Northern (Executive Scheme), BNSF (two schemes), Colorado Pacific, CSX, KCS, and Metra. In association with HomeShops, SD70MACs will be available in Virginian & Ohio, Texas & Great Northern (two schemes), and Georgia Road. The locomotives are available both in DC/DCC ready (US$249.95) and dual-mode DC/DCC/Sound (US$359.95) versions.

Rapido Trains, in partnership with HomeShops, has is taking preorders for PC&F B-100-32 (40′ 4124 cu. ft.) boxcars decorated for the Copper State Railway, the Linea Ferrocarril Golfo y Rio Bravo, and the Lost Dutchman Railroad. The cars will be available as single cars and in 6-packs. The US price for the cars is $59.95 single and $359.70 for a six-pack.
Info: www.rapidotrains.com
All artwork and graphics are courtesy of Rapido Trains

VIEW READER COMMENTS

J. Six

EMD GP40

The 3,000hp EMD GP40 was one of the first generation of EMD locomotives using the turbocharged 645E3 16-cylinder prime mover. Beginning production in November 1965, the GP40 succeeded the 2,500hp GP35 in the EMD catalog. Built for 28 US railroads, two Mexican railroads, and Canadian National, 1,221 GP40s were produced before it was succeeded by the GP40-2 on January 1, 1972. A four-axle locomotive, it rides on Blomberg-B trucks and a 55-foot frame, with one of its main spotting features being three 48″ radiator fans. The other two members of the 645-powered GP club, the normally aspirated 2,000hp GP38 and the turbocharged 2,300hp GP39, only have two 48″ radiator fans.

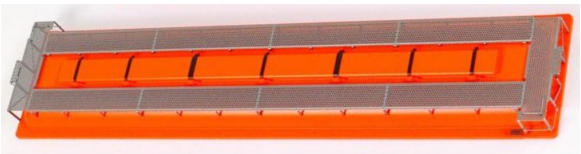
ScaleTrains has announced a new run of HO scale Rivet Counter EMD GP40 locomotives. Road names in the run are Baltimore & Ohio (two schemes), CB&Q, Burlington Northern (two ex-CB&Q schemes), Chesapeake & Ohio (three schemes), CSX (two schemes), Illinois Central, Illinois Central Gulf, and Soo Line (two schemes). With a high level of road number specific detail, the models will be available in both DC/DCC Ready ($199.99) and DCC/Sound equipped ($309.99) versions. Info: scaletrains.com

---

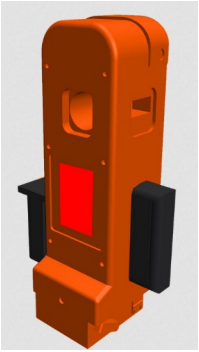
Speedwitch Media has released a PFE R-40-25 Refrigerator car parts kit, used to upgrade an Intermountain R-40-23 refrigerator car to modern detail standards. The kit includes Improved Dreadnaught ends, scale-sized bolster and side sill support tabs, accurate ladders and other steps, hatch supports

and rests, brake mounting equipment and levers, and additional details and etchings. Decals are by Cartograf. Price for a single set is $38, without decals is $33, and a two-pack is $71. The base model is not included.
Info: speedwitchmedia.com

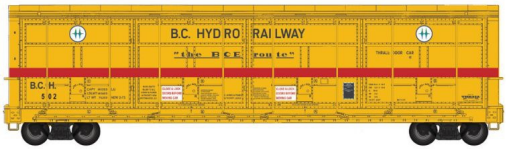
Tangent Scale Models
April 2026 release is a new run of the HO scale IC/ICG Centralia Shops 3834 cu. ft. Quad Coal Hopper in new paint schemes. Built in multiple orders between 1968 and 1977, over 1,400 of these hoppers served IC/ICG while an additional 330 cars were built for Inland Steel and Indianapolis Power & Light ordered 50 of them. They largely departed service in the 1990s. An unusual use was in 1973 as covered hoppers for grain service using a fiberglass "Hopper Topper" that included trough hatches on the roof. The styles included in this release are Inland Steel/INLX "Delivery Black 7-1968," IC "Delivery Black 1969," ICG "Delivery Black 1977," and four unlettered, assembled cars, Black IC 1968 body, Black IC 1969 body, Black ICG 1972 body, and Black ICG 1977 body. The cars feature many road and car specific details. Cars are priced from $52.95 to $54.95 depending on the model.



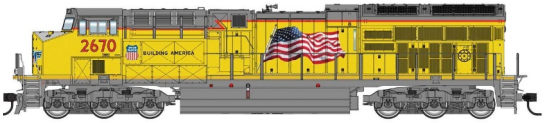
Also available are 3-packs of the ICG Orange Hopper Topper used in 1973 and later years to temporarily convert the 3834 cu. ft. Quad Hopper into a covered hopper for food grade service, hauling wheat, corn, and soybeans. A 3-pack is priced at $44.95.
Info: www.tangentscalemodels.com



Wallace Locomotive Works has a new Scal-EOT Orange Style 2 EOT device, which is can be illuminated with a separately purchased LED kit. It is described as fitting most couplers (Kadee #5, Kadee #178, McHenry, ScaleTrains) and includes a simulated air hose. The EOT is prepainted in orange and comes two per pack. Price is $8 per pack.
Info: www.wallacelocoworks.com

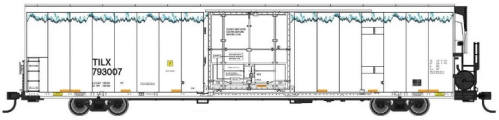


Walthers April announcements begin with the WalthersProto 56′ Thrall all-door boxcar. Developed in the 1960s for lumber and other weather sensitive cargo, the HO scale car features separately applied ladders, latch bars, door handles, and brake wheel. The model includes 33″ metal wheels and Proto MAX metal knuckle couplers. Road names in the run are Ashley, Drew & Northern, BC Hydro Railway, Cooperstown & Charlotte Valley Railway, Canfor, Green Bay & Western, Illinois Terminal, Armstrong/LUNX, and Sacramento Valley Moulding/TCAX. The cars are expected to arrive in Fall 2026.



A newly tooled GE ET44AC is joining the WalthersMainline product line. With an expected delivery of Spring 2027, the Tier 4 GEVO locomotive is available for preorder in both standard DC and with ESU Sound and DCC. Road names in the first run are BNSF, Canadian National, CPKC, CPKC America250, CSX, Norfolk Southern, Union Pacific, and Undecorated.

From WalthersMainline in rolling stock is a new run of the 72′ modern refrigerator car. Featuring 100-ton trucks with 36″ RP-



25 turned metal wheels and a separate end-mounted refrigeration unit, the cars are available for preorder decorated for BNSF, CEFX, Union Pacific (ARMN), TILX, and America250. The prototype entered service in 2019 and can be seen across North America. Delivery is expected in Fall 2026.

Another WalthersMainline product, the 60′ Gunderson Plate F boxcar with horizontal side posts is a modern high-cube boxcar with double 8′ plug doors and a capacity of 7550 cu. ft. It will be available decorated for Ferromex/FXE, Laurinburg & Southern/LRS, Riverside Rail/RVRX, TTX/TBOX (3 schemes), Union Pacific/BKTY, and a data only scheme in mineral brown. Multiple road numbers will be available for each scheme except data only. Delivery is expected in Winter 2027. Check the Walthers website for pricing.
Info: www.walthers.com

N SCALE PRODUCT NEWS

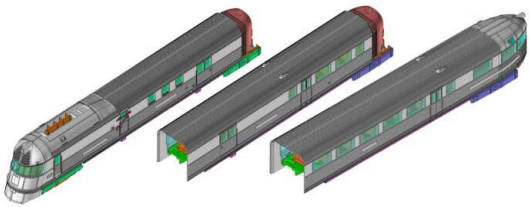
Jackson Railcar has announced it is taking preorders for the Trinity 5239 3-bay covered hopper. With several horizontal ribs on the hopper body, it is one of the most distinctive covered hoppers in service. First entering service with Union Pacific in 2021, it can be found in both unit trains and mixed manifest service. The model is available with 12 road numbers in three UP reporting mark paint schemes and one CMO reporting mark scheme, with six additional road numbers available in a separate CMO scheme. The model will be equipped with Micro-Trains compatible couplers. Preorders are

open through June 1st with an expected arrival date of first quarter 2027. MSRP is $39.95.
Info: www.jacksonrail.com/n-scale-trinity-5239

J. Shultz

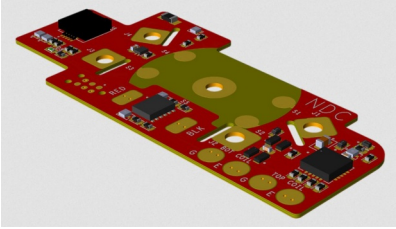
Pioneer Zephyr

The Pioneer Zephyr was designed and built by Budd Co. as the Burlington Zephyr in 1934 for the Chicago Burlington & Quincy Railroad. Powered by an eight-cylinder Winton 8-201-A 2-stroke diesel engine producing 600hp, it reached a top speed of 112.5 mph (181 km/h) on a run between Denver and Chicago. It was renamed the Pioneer Zephyr in 1936 as the CB&Q purchased more Zephyr train-sets. With three cars, the first was split between the cab, engine, and an RPO. The second car contained a checked baggage section, a buffet-grill, and seats for 20 passengers. The third car was divided between a coach section with 40 seats and a solarium-lounge (or observation section) with seating for 12. Entering regular passenger service on November 11, 1934, the Pioneer Zephyr continued in service until March 20, 1960, when it tied up at the Chicago Museum of Science and Industry, its home ever since.

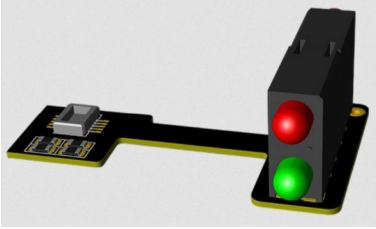


Kato has announced that they will be releasing the Pioneer Zephyr in N scale, based on the prototype located at the Chicago Museum of Science and Industry. The model will include the RPO Power car, the baggage/buffet coach, and the observation car. It will be equipped with a DCC friendly mechanism with a speaker housing space in the baggage compartment, directional golden white LED headlights and taillights, and blackened metal wheels with all-wheel electrical pickup. Optional lighting, no-sound DCC, and Sound/DCC are available,

with prices beginning at $199 with no options to $444 with DCC/Sound and lights.
Info: www.katousa.com



Proto Design Labs has released the NDC double crossover accessory decoder designed for the Kato Unitrak N scale double crossover. A single decoder drives all four turnouts together. The price is normally $35.



Designed to work with the NDC double crossover and connect through the cable opening in the Kato double crossover, the NDSXDC double dwarf signal plugs directly into NDC accessory decoders. The LED intensity can be adjusted through the NDC decoder. The price is normally $10.
Info: www.protodesignlabs.com

Rapido Trains has announced pre-orders for an N scale EMD SD70MAC in both the flat radiator Tier 0 and flared radiator Tier 1 styles. Railroad specific modifications, such as the Eco-Trans Auxiliary Power Unit on units ordered by the CSX, Head End Power (HEP) units, winterization hatches used on the Alaska Railroad units, and the many modifications needed for Metra's SD70MACH locomotives are included. Other upgrades have resulted in CSX and KCS SD70MACe locomotives having a raised dynamic brake hatch.

Railroads in the first release include Alaska Railroad, Burlington Northern (Executive Scheme), BNSF (two schemes), Colorado Pacific, CSX, KCS, and Metra. The locomotives are available both in DC/DCC ready (US$189.95) and dual-mode DC/DCC/Sound (US$299.95) versions.
Info: www.rapidotrains.com
All artwork and graphics are courtesy of Rapido Trains

STRUCTURES & SCENIC SUPPLIES

New from **Ammo by Mig Jimenez** is the DIO Set: Tarmac Roads, a set for creating asphalt road surfaces. It includes masking tape, acrylic texture, acrylic color, two pigment colors, and a pigment fixer. MSRP is $30.80.
Info: www.migjimenez.com

Recently announced from **Bar Mills** is Clem's Haul Away, a laser cut kit with resin and 3d printed castings in HO ($69.95), N ($49.95) and O ($89.95) scales. The structure's footprint in O scale is 9.5″ x 8.5″, HO is 5.5″ x 4.5″, N is 2.75″ x 4″. Shipping begins May 18th.

Info: barmillsmodels.com

New from **Characters Count Miniatures** are two figure collections. The Sawmill Collection #1 contains seven figures – the owner and foreman, two men pushing something, a saw filer, a bark scrapper, a man cleaning up, and one figure working the "start/stop." The Working on the Railroad Collection #1 also includes seven figures, including Engineers, Firemen, Brakemen, and a female Mechanic. The figures are dressed in steam era garb. Prices for each collection are O - $30, S - $35, HO - $35, and 1:24th - $110. Info: www.characterscountminiatures.com

---

Downtown Deco has introduced a kit in O, HO, and N scales called Jiggles & Giggles. A cocktail lounge, the kit consists of hydrocal castings, full decals, Tichy doors and windows, and full instructions. In O scale the model footprint is 6″ x 10″, in HO scale the footprint is 3.5″ x 5″, and in N scale the footprint is 2″ x 3″. Retail prices are O - $99.99 , HO - $64.95, and N - $45.95.

Info: downtowndeco.com

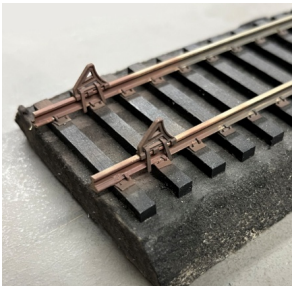
DVL Design has introduced sign #B810 – "Bar-Beer-Wine-Cocktails" neon sign. The HO scale sign measures 0.52″W x 0.36″H. They can be ordered in a variety of frame styles and in red, green, blue, amber, yellow, or white. The recommended voltage is dependent on the color. The price of the sign is $35.95.

Info: www.dvldesign.com

Faller has announced a new series of kits to make up a steel mill in HO scale, including a Blast furnace with casting hall (€799.99), a Blast furnace Technology kit (€199.99), 3 Hot blast stoves (€164.99), a Gas cleaning building (€49.99), Water treatment plant (€34.99), and a Blower hall with pipework (€69.99).

In N scale Faller has announced a DHL logistics center kit with figures. The kit comes with six figures. It is priced at €59.99. Info: www.faller.de/en

---

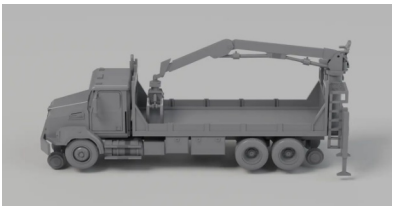


FineScale 360 Modeling has released wheel stops in O and HO scales. The O scale wheel stops are designed to fit code 180 and smaller rail, the HO wheel stops fit code 83 and 70 rail. Both the 8-pack in O scale and 12-pack in HO scale are priced at $7.95. O scale model pictured. Info: finescale360.com

---

Herpa has announced several new vehicles for release in September/ October 2026. Some of the models in the "IV 2026" announcement are a red VW Passat (€19.95), the Mercedes S-class in graphite grey (€19.95) and canvasit blue (€21.95), and the Mercedes

Vito Van (€14.95) in both cargo and passenger versions in several colors.
Info: www.herpa.de/en



Industrious Models has announced a 3D-printed Western Star 4700 Grapple Truck for pre-order. It will be available in HO, S, and O scale. Some assembly is required on the unpainted model. The model is priced at $30 for the HO scale model and $38 for the O and S scale models.
Info: industriousmodels.com

Inter-Action Hobbies has released O and HO scale waterline model kits of a 1912-built workboat named GENE. Destroyed by fire in 1930, the GENE had several owners over its 18 years of service in British Columbia. The model consists of laser cut and engraved resin impregnated board and basswood, laser cut clear window glazing, 3D printed detail parts, and waterslide decals. The O scale model also includes laser cut and engraved birch veneer cabin sides. Four crew and passenger figures are included free for a limited time. The HO scale model is 5.63″ long x 1.78″ wide and the O scale model is 10.2″ long x 3.3″ wide. The HO scale model is priced at $40 and the O scale model is priced at $72.95. The O scale model is pictured.
Info: www.interactionhobbies.com

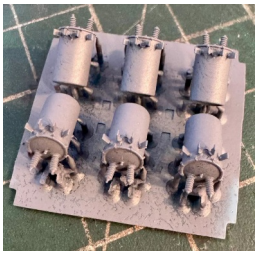
Micro-Mark has released a new line of acrylic paints, three sets of which have railroad-related names. The Railroad Model Color Acrylic Paint Set contains 16 bottles of colors, a bottle of thinner and a bottle of cleaner. The Acrylic Air Paints set includes 16 railroad colors matched to PolyScale, thinner and cleaner. The Trackside Paint Set has eight colors and a primer. The 18-bottle sets are $34.95 and the 9-bottle set is $19.95.
Info: micromark.com

Mine Mount Models has released the A K Machine Shop, which includes two structures, a portable hoist, and a fuel tank on a stand. The kit features laser cut structures, 3-tab shingles, resin detail parts, and Tichy Doors. Available in HO, the main structure measures 4.5″D x 3.25″W x 2.25″H and the shed measures 2.5″D x 1.75″W x 1.12″H. The kit is priced at $80. See the website for S and O scales.
Info: minemountmodels.com

New from **miniprints** is a 3D-printed Box Drill, used for planting rows of seed. It is available unpainted in N ($10), HO ($10), S ($12.99), and O ($20) scales. It can be painted at an additional cost.

If you're looking for a bit of humor, it's hard to get more funny or absurd than Monty Python, and miniprints now has the King of the Britons - suitable for placing near a pond (strange

woman not included) or a shrubbery. Available in N ($4.99), HO ($4.99), S ($6.99), and O ($10.03) scales.



Also new is this set of six pole transformers, available in HO ($4.99), S ($5.99), and O ($9.99) scales.
Painted miniprints figures are available for an extra charge.
Info: miniprints.com

ModelSmiths by D5 DEM has introduced a manual two-way block limit signal in HO scale. Used on the Pennsylvania and Long Island Railroads, the model is offered mounted to either a square post or round mast. The signals are pre-wired with 24″ of 38-gauge wire attached. To assist in painting the model the lenses come with a latex mask pre-applied over them. It can be removed after painting. Retail price is $14.95.
Info: modelsmiths.d5dem.com

Noch has numerous new figures available or scheduled for release in September, October, and November of 2026. Some of the figures, like “Sculptor” and “Lectern” are part of a mini-scene, while “Baseball” and “Soccer” are pairs of figures engaged in an activity.

There are also groups of figures, such as “Criminal police with Corpse,” and “Seated Travellers.” Five new Mega Economy sets of 29 – 45 people or animals will be available at the end of October. Themed figure sets include several figures and supporting details, such as weight equipment in the “Gym” set. While new figures are or will be available in Z, N, TT, and HO scales, not all figures or sets are available in all scales. Prices vary from €5.49 for a single figure to €59.99 for the Mega Economy sets.
Info: www.noch.com

Pre-orders are being taken for new HO scale vehicles from **Oxford Diecast.** New products include a 1937-1940 International D-2 Pickup Truck, a 1962 Plymouth Belvedere, and a 1951 Hudson Hornet Sedan. MSRP for the vehicles is $19.95.
Info: walthers.com

Pre-Size Model Specialties has released an O scale Dressed Stone Double Track Bridge Pier. It measures 8″W x 2.25″D x 4.75″H. The shelf is 7.5″W x 1.5″D.
Info: www.pre-size.com

Showcase Miniatures has released two new 3D printed car kits in the MadAboutCars line in HO scale, the '70-'72 "P.V." 2-door and 4-door sedans. Manufactured in two parts – body and chassis, the cars are priced at $18.

In N scale, the 1965 "I" series "T" Crew Cab pickup is available in three body styles – the standard pickup, the Stepside, and the Long Stepside. Also produced with separate bodies and chassis, the price is $12.

Also in N scale is the 1987 "F" Series "C.V.," available in a 2-door coupe, 4-door sedan, Wagon, and Country Sq. Wagon. Price for each car is $12.

For 1960s modelers in N scale is the 1960 "Ch. Bis." Series cars, available in a 2-door sedan, 4-door sedan, Wagon, and Delivery vehicle. A vacu-formed windshield is available for this car. Price for each car is $12, with the windshield available for an additional $2.

Finally in N scale is the 1963 "F. Fair," available as a 2-door coupe, 2-door sport coupe, 4-door sedan, Wagon, and a C.S. Wagon. Price is $12.

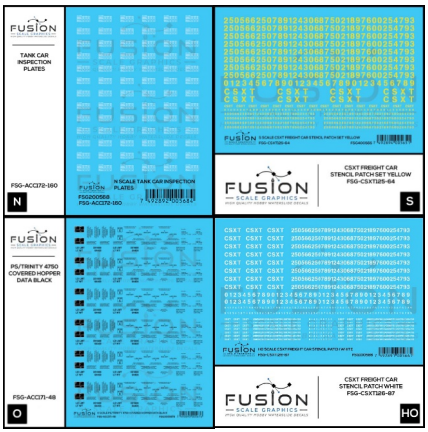
Info: www.showcaseminiatures.net

Yelton Models has released an Oil Loading Platform in HO and N scale. 3D-printed in gray resin, the model can be combined with the Maintenance Platform - NY096 (N scale) or Y0377

(HO scale) for a larger facility. The price of the N scale platform is $15 and the HO scale platform is $20.

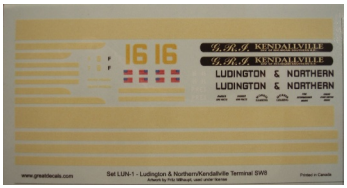
In N scale, the Dan's Diner kit comes printed in grey or navy resin and depicts an art deco era diner complete with a building interior with five booths and a 12-person counter and kitchen area. It is priced at $60.
Info: www.yeltonmodels.com

NEW DECALS, SIGNS, AND FINISHING PRODUCTS



New decals from **Fusion Scale Graphics** include N scale tank car DOT inspection plates ($8), O scale PS/Trinity 4750 Black Covered Hopper Data ($12), O & S scale CSXT yellow Freight Car Stencil Patch ($9), and N and HO CSXT white Stencil Freight Car Patch ($9).
Info: fsdecals.com

Great Decals has several new decal sets, including Enchantment Blue & White for HO scale C&O L-1 streamlined Hudson locomotives ($13.99), HO scale Richmond Fredericksburg & Potomac 9000 series Thrall 54' covered hopper ($4.99), Luddington & Northern SW8 #16 ($5.99 N,



$8.99 HO, $30 S, $25.99 O) and Southern MOW vehicles ($2.99). Info: www.greatdecals.com

---

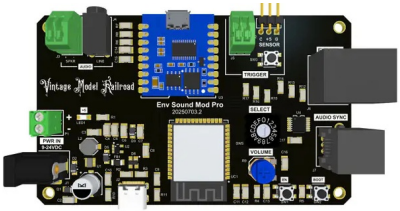
New decal sheets from **K4 Decals** include Pere Marquette Heavyweight Passenger Cars Dulux Gold, SLSF Frisco GARX Plug Door Boxcar Black and Green, Washington and Old Dominion Diesel Locomotives and Doodlebug, TRRA Terminal Railroad ASSN of St Louis Diesel Locomotives and Cabooses White, and Texas Mexican Railway 52 Ft Gondola White. Prices start at $7.45 for single sheet decals, $9.95 for two sheets, $12.45 for three sheets, and $14.95 for four sheets. Decals are available in Z, N, TT, HO, S, O, and G scales.
Info: k4decals.com

Microscale has released Stock #87-1542, Canadian Pacific Kansas City Tier 4 Data Sheet. It has an MSRP of $8.25.
Info: microscale.com

Shell Scale Decals has released a set of Norfolk Southern Freezer-Beater and ACSES PTC decals in N, HO and O scale. The decals are $2.99.
Info: www.shellscale.com

ELECTRONICS

ESU LokSound has released version 5.2.18 of the LokProgrammer software for download. Included is firmware 5.14.183 for LokSound and LokPilot 5 decoders. The software now programs CV 11 to define the time after which the decoder should switch to analog operation, stop, or continue driving after losing data reception, and all sound slots from SS3 onward can be defined as "driving sounds."
Info: www.esu.eu/en/downloads/software/lokprogrammer



Jackson Railcar has released the VMR1001, the Environmental Sound Module Pro – Multi Scale. A sound board that can power either a 4-8Ω speaker at up to 5W or use a 1/8″ audio jack to output the sounds to an external amplifier, sound system, or headphones. MP3 sound files are stored in 4MB of onboard memory and new sounds can be uploaded via USB. Sounds can be triggered by an external switch, or sensor. 16 selectable sound files are included. A separate LED diver board controlled by the audio intensity is also available. The module is priced at $59.99.
Info: www.jacksonrail.com/railnet

NarrowProtoThrottle has introduced a 3D-printed case to replace the one on the back of the standard ProtoThrottle. It reduces the depth of most of the Protothrottle from 47mm to 34.8mm. Basic soldering to a printed circuit board is required to move the battery box to the outside of the new case. The case is available in Black, Gray, and semi-transparent Frost. It is priced at $64.99. A Narrow Facia holder is available for $35.99.
Info: narrowthrottle.square.site

Briefly noted at press time ...

Lowell Smith/Railsmith has announced preorders for the B&O Railroad's Youngstown and Cumberland coaches as part of the National Limited heavyweight streamline train. Price $108/pair. Info: lowellsmith.net

Rapido has added the Metro North America 250 unit to the first release of HO scale P32AC-DM locomotives. Pre-orders on this locomotive close July 1, 2026 with an expected arrival date of late 2026/early 2027. Info: rapidotrains.com

Atlas has released it's Spring O scale catalog with a pre-order/ reservation date of June 3, 2026 for products in it. Along with new paint schemes and road numbers on existing models, an all-new O scale Trinity 64′ Reefer announcement is in the catalog. It comes decorated for BNSF, CIT Group/CEFX, Tropicana, TILX, and UP/ARMN. MSRP $124.95 single, $479.80 in four packs. Info: shop.atlasrr.com

Athearn has released it's May-June announcements, with pre-orders due June 30, 2026. Products announced in HO scale include the Genesis GE AC4400CW locomotive, Genesis GATC 2600 Airslide covered hopper, Genesis ICC caboose, Athearn 200-ton crane with 50′ gondola, Athearn 50′ Evans double-plug door boxcar, Athearn 50′ FMC 5347 boxcar, Roundhouse 50′ waffle high cube plug door boxcar, Roundhouse F-unit locomotive, and Roundhouse streamliner passenger cars. In N scale a 50′ FMC 5347 boxcar was announced. Full details will be in the June News. Info: www.athearn.com

ClassOneModelWorks.com has announced pre-orders for the 75′ F39 flatcar. Available in 10 paint schemes, the F39 model features road name specific details. The models are priced at $76.99. 26′ Fruehauf trailers in 13 paint schemes and 31′ Fruehauf trailers in 8 paint schemes are also available for preorder. Trailers are priced at $31.99 apiece. ■

SELECTED EVENTS

May

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

Ongoing Online and In-Person

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

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

ILLINOIS, CALEDONIA, Monthly Meetings of the Rock River Valley Division, Midwest Region. Paulson's Agriculture Museum of Argyle, 6950 Belvidere Rd. See Events page on website for dates.
Info: rrvd-nmra.com

May - June 2026

CANADA, BRITISH COLUMBIA, BURNABY (Vancouver), May 22-24, 2026. Online Kickoff May 14th. Railway Modellers Meet of British Columbia. 3rd Floor, West Mall Centre, Simon Fraser University.
Info: railwaymodellersmeetofbc.ca

CANADA, ONTARIO, CAMBRIDGE, May 16, 2026. 16th annual Ontario Narrow Gauge Show. Portuguese Club of Cambridge, 870 Townline Road.
Info: www.davidwoodhead.com/narrowgaugeontario.html

CANADA, ONTARIO, THUNDER BAY, May 21-24, Superior Rails, Thousand Lakes Regional Convention. Delta Hotel, 2240 Sleeping Giant Parkway.
Info: www.thousandlakesregion.org

ARIZONA, MESA, June 3-7, 2026. Santa Fe Railway Historical & Modeling Society Annual Convention. Includes RPM on June 5-6. Delta Hotel By Marriott Phoenix Mesa, 200 North Centennial Way.
Info: sfrhms.org

CALIFORNIA, FRESNO, June 26-27, 2026. First Annual Toy Train Show, sponsored by the Fresno Model Railroad Club. Big Fresno Fair Ground's Commerce Building, 1121 S Chance Ave.
Info: fresnomodelrailroadclub.com

CALIFORNIA, LOMITA, May 30, 2026. Southern California N Scale Meet. Calvary Assembly of God-Lomita (Gymnasium).
Info: socalnscale.com

FLORIDA, BROOKSVILLE, May 23, 2026. Regal Railways Toy Train & Collectible Show. Hernando County Fairgrounds, 6436 Broad Street.
Info: www.facebook.com/regalrailwaysshows

ILLINOIS, DECATUR, June 27-28, 2026. 35th Anniversary Decatur Train Fair. First National Bank of Decatur Arena at the Decatur Civic Center, #1 Gary Anderson Plaza.
Info: www.decaturciviccenter.org/events/573/decatur-train-fair-2026

ILLINOIS, GREENVILLE, June 13, 2026. AHRR Annual Train Show to benefit the American Heritage Railroad. American Heritage Museum, 1395 Museum, Ave.
Info: www.americanfarmheritagemuseum.com/ahrr-train-show.html

KENTUCKY, BEREA, June 13, 2026. 26th Annual L&N Day. L&N Depot, 3 Artist Circle.
Info: www.facebook.com/events/1667163034282560

MASSACHUSETTS, SPRINGFIELD, May 29-30, 2026. New England/Northeast RPM. The Sheraton Monarch Hotel, One Monarch Place.
Info: www.nerpm.org

MICHIGAN, KALAMAZOO, May 15-17, 2026. The New York Central System Historical Society Convention and Annual Meeting. Delta House by Marriott, 2747 South 11th St.
Info: www.nycshs.org/nycshs-2026-annual

MISSOURI, ARNOLD, May 23, 2026. After the Storm Train Show. Arnold Eagle's Club, 1725 Jeffco Blvd.
Info: www.facebook.com/WeBuyTrains

NORTH CAROLINA, RALEIGH, May 23-24, 2026. 9th Annual Spring into Trains Show. Jim Graham Building, Gate 9, 4285 Trinity Road, North Carolina State Fairgrounds.
Info: nrvclub.net/spring-model-railroad-show

NORTH CAROLINA, SPENCER, May 16-17, 2026. Historic Spencer Shops Train Show. N.C. Transportation Museum, 1 Samuel Spencer Dr.
Info: www.nctransportationmuseum.org/train-show

OHIO, DAYTON, June 4-7, 2026. Whistle-Stop Dayton, Mid-Central Regional Convention. Marriott Hotel at University of Dayton, 1414 S. Patterson Blvd.
Info: www.modelraildayton.com/Documents/2026%20Convention/2026MCRConHome.html

OHIO, MARION, May 15-17, 2026. 17th Annual Ohio N Scale Weekend. Marion County Fairgrounds.
Info: www.centralohiontrak.org

OREGON, PORTLAND METRO, June 20, 2026. Railroads in the Garden Summer Tour, presented by the Rose City Garden Railway Society. Booklets are available online, at local hobby shops, and some garden centers beginning May 1st, 2026.
Info: rcgrs.com

OREGON, TIGARD, May 13-16, 2026. Oregon Rails 2026, the 2026 Pacific Northwest Region NMRA annual convention. Embassy Suites by Hilton Tigard-Portland, 9000 SW Washington Square Road.
Info: oregonrails2026.com

PENNSYLVANIA, KUTZTOWN, May 16, 2026. Flash Train Meets. Renninger's Farmers, Flea, and Antique Market, 740 Noble St.
Info: renningers.net/event-category/kutz-events

SOUTH DAKOTA, RAPID CITY, May 13-16, 2026. 2026 Rocky Mountain Region Convention. Best Western Ramkota Hotel, 2111 N LaCrosse Street.
Info: www.rmr-nmra.org/2026%20Convention/Home2026.html

TENNESSEE, JOHNSON CITY, May 29-30, 2026. Johnson City Railroad Experience Big Train Show. ETSU Mini-Dome, East Tennessee State University Campus.
Info: johnsoncityrailroadexperience.org/big-train-show

TEXAS, AUSTIN, June 18-21,2026. 2026 Connections, Lone Star Regional Convention. Wyndham Garden Austin, 3401 South IH-35.
Info: 2026-convention.lsrnmra.org

TEXAS, SAN ANTONIO, May 16, 2026. San Antonio Train Show. Parkhills Baptist Church, 17747 San Pedro Ave.
Info: www.tca-lonestardivision.org

WISCONSIN, MARINETTE, June 27-28, 2026. Trains, Games & Automobiles, sponsored by the Wisconsin & Michigan Model Railroad Club, Enginehouse Services, and Game Knights Hobby Store. Marinette Community Rec Center, 2501 Pierce Ave.
Info: trainsgamesandautomobileshow.com

Future 2026 by location

CANADA, ONTARIO, WATERLOO, August 29-30, 2026. Waterloo Railway Exposition, Hampton Inn & Suites by Hilton Waterloo St. Jacobs, 55 Benjamin Rd.
Info: waterloorailexpo.ca

CALIFORNIA, SAN DIEGO, September 9-13, 2026. Pacific Southwest Region "All Aboard for 2026" Model Train Convention. Doubletree by Hilton Hotel San Diego-Mission Valley, 7450 Hazard Center Dr.
Info: www.sandiegodivision.org/index.php/convention-2026

COLORADO, GREELEY, October 16-18, 2026. Colorado Rail Proto Meet. Island Grove Event Center, 421 N 15th Ave.
Info: corpm.org

FLORIDA, OCALA, October 15-18, 2026. Iron Horse, the 2026 Sunshine Region Convention. Ocala Hilton, 3600 SW 36th Ave.
Info: www.nmrasunshineregion.org

ILLINOIS, COLLINSVILLE, July 23-25, 2026. MCoR 2026 Regional Convention and St. Louis RPM. Gateway Convention Center, 1 Gateway Dr.
Info: www.mcor-nmra.org/Conventions
Info: stlrpm.com

MARYLAND, LINTHICUM, October 1-4, 2026. Mid-Atlantic RPM. Doubletree by Hilton Hotel Baltimore – BWI Airport, 890 Elkridge Landing Road.
Info: www.marpm.org

MASSACHUSETTS, SOUTHBRIDGE, October 15-18, 2026. Eyes on the NER, Northeastern Regional Convention. Wellsworth Hotel, 14 Mechanic St.
Info: conventions.nernmra.org/home/home-2026

MASSACHUSETTS, TAUNTON, September 20, 2026. 26th Annual Model Train Show, sponsored by the Old Colony Model Railroad Club. Taunton Inn & Conference Center, 700 Myles Standish Blvd, Route 495 Exit 25.
Info: trainshows.net/event/1767/old-colony-railroad-club-annual-model-train-show

MICHIGAN, ZEELAND, October 8-10, 2026. Grand Rails 2026. North Central Regional Convention. Howard Miller Community Center, 14 South Church St.
Info: grandrailsdiv4.com

MISSOURI, INDEPENDENCE, September 17-19, 2026. 2026 Brass Train Show. Missouri Model Railroad Museum, 312 W. Pacific Avenue.
Info: showmerails.org/2026-train-shows/2026-brass-train-show

MISSOURI, SPRINGFIELD, September 11-12, 2026. Ozarks Model Railroad Association Train Show, Ozark Empire Fairgrounds, E-Plex West Hall, 3001 North Grant Ave.
Info: omraspringfield.org/train-show

MISSOURI, ST LOUIS, August 1, 2026. The National Museum of Transportation Model Train & Diecast Tailgate Swap Meet. Parking Lot #2, The National Museum of Transportation, 2933 Barrett Station Rd.
Info: tnmot.org/event/model-train-swap-meet

MISSOURI, ST LOUIS, August 29, 2026. Railroad Swap Meet, sponsored by the Boeing Employees' Railroad Club – St. Louis. Greensfelder Recreation Complex at Queeny Park, 550 Wiedman Rd.
Info: www.berrc-stl.com/V3.0p/index.html

OHIO, CAMBRIDGE, October 25, 2026. Eighth Annual NMRA Buckeye Division Train Show. Pritchard Laughlin Center, 7033 Glenn Hwy.
Info: www.nmrabuckeyedivision.org/train-show

PENNSYLVANIA, ALLENWOOD, August 30, 2026. 50th Annual Train Show & Sale, Sponsored by Central PA Chapter, National Railway Historical Society. Warrior Run Fire Department Social Hall, Second St.
Info: www.centralpanrhs.org

PENNSYLVANIA, HAMBURG, September 18-20, 2026. Anthracite Railroad Modelers and Model Railroad Meet XIV. Reading Railroad Heritage Museum, 500 South 3rd St.
Info: www.facebook.com/groups/624611144335704

PENNSYLVANIA, KUTZTOWN, July 18, September 12, 2026. Flash Train Meets. Renninger's Farmers, Flea, and Antique Market, 740 Noble St.
Info: renningers.net/event-category/kutz-events

TENNESSEE, CHATTANOOGA, July 27-August 2, 2026. 2026 Scenic City Express, NMRA National Convention and National Train Show. Chattanooga Convention Center, 1 Carter St.
Info: www.nmra2026.org

VIRGINIA, VIRGINIA BEACH, October 15-18, 2026. Tracks to Tidewater, 2026 Mid-Eastern Regional Convention. Holiday Inn, Virginia Beach, 5655 Greenwich Rd.
Info: mer-nmra.com/savethedate/index.html ■

Clickable advertiser index

Clickable “other” index

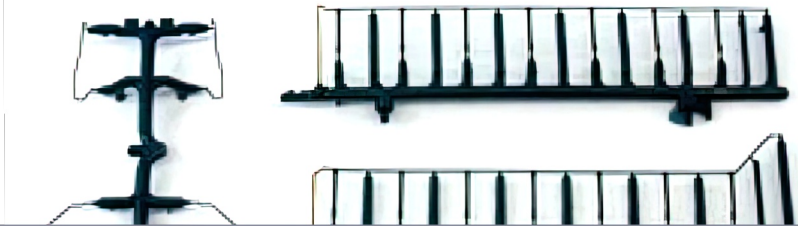
Coming next month in MRH ...

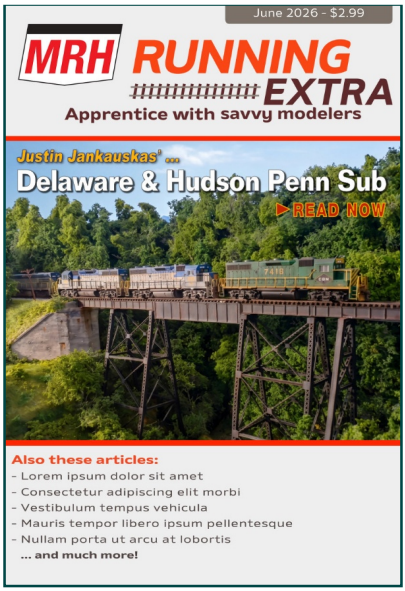
... coming June 15th in the June 2026 MRH

Coming next month in Running Extra ...

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

Repairing plastic handrails ...





... all this and much more!

SUBSCRIBE AND SAVE UP TO 80%