blocks controlled by two different power packs. You can accomplish this by installing a few double-pole double-throw (DPDT) switches between your power packs and your wiring blocks. You need to wire them so that either power pack can control either track block. When you want to send a train into or out of the yard, flip the switches so both blocks are controlled by the same power pack. Drivelted by the same power pack controlled by the same power pack. Drivelted in the locomotive's wheels are completely in the other block, then — and only then — flip the switch to give control over to the other power pack.

If you want to be able to control both parts of your layout simultaneously and hand off locomotives from one to the other on the fly, you need to create a third, separate track block between the two. This transition block needs to also be wired with a DPDT switch so it can be controlled by either power pack. Flip the switch so the transition block is controlled by the same power pack as the block where the train is. Drive the locomotive forward into the transition block,

then switch the block to control of the other power pack.

Look up the article "How to wire a layout for two-train operation" in our July 2011 issue for more about wiring your railroad for DC block control. You'll find even more information in Larry Puckett's book Wiring Your Model Railroad, available in the Kalmbach Hobby Store (kalmbachhobbystore.com/product/book/12491).

② I recently received my copy of Gerry Leone's Model Railroader's Handbook [also available in the Kalmbach Hobby Store —Ed.]. In the "Railroad Regulatory Timeline" on page 111, most of the regulations banned older, unsafe technology (archbar trucks, truss-rod car construction, etc.) as newer equipment was developed. That made sense to me. But I noticed that in 1937, billboard reefers were banned. I can't imagine what the motivation for banning such cars could have been. Can you shed any light on this?

Chris Sant

⚠ Billboard reefer cars were only kind of banned. What was banned was the practice that made them profitable. The issue was complex, so I asked Kalmbach Books author and railroad historian Jeff Wilson for clarification.

A billboard car is one usually belonging to a leasing company, not a railroad, that's emblazoned with often large and splashy advertisements touting the products it carried. Sometimes, the billboard advertised a product unrelated to the car or the business it served. Usually it was a refrigerator car, but there were a few billboard boxcars, and oil tank cars fell under the same rules.

When a railcar is on the rails of a railroad different from the car's owner, the railroad must pay a daily fee, called a per diem, to the car's owner. In addition, if the car's owner is not another railroad, but for instance a car leasing company, the railroad also pays the car's owner a mileage charge based on how far the car moves. Obviously, the railroads would rather not have to pay this fee. But since shippers could request what car they



Ask MR



HALF PRICE HOBBY

100's of HO and N Scale specials at 50% off of M.S.R.P. at www.halfpricehobby.com

Regular Stock items always discounted from 20 to 50% off with low flat rate shipping of \$8.99

Featuring products from Athearn and other quality brands

Special orders and pre-orders accepted at regular discounted prices.

Please email service@halfpricehobby.com



www.axiantech.com





After the Interstate Commerce Commission banned billboard cars in 1937, per-diem reefers like this Swift Refrigerator Line car could display only the company they were consigned to. David P. Morgan Memorial Library collection

wanted to carry their goods, railroads had little choice but to use leased cars.

Back in the 1920s, leasing companies found what they thought was a swell way to increase business. They would pay a portion of the mileage charge they got from the railroads back to the shippers as a rebate for requesting their cars.

Lessors started painting their cars with big, showy advertisements for the shippers' products, like Rath Hams, Land O'Lakes Butter, and Budweiser Beer. The shippers liked this, because it meant extra money for them, plus advertising. The leasing companies liked it, because their cars got more mileage.

Who didn't like it? The railroads, who were the ones paying the rebate by being forced to use mileage-rate cars instead of their own. Plus, since a lot of refrigerator car lines were associated with or even outright owned by the shippers, the shippers were essentially double-dipping at the railroads' expense. Not to mention, shippers such as Hormel Meats didn't appreciate it when a reefer bearing a third-party advertisement like Old Dutch Cleanser showed up at their loading docks.

So the railroads took their case to the Interstate Commerce Commission, which in 1934 banned the rebate scheme and banned cars with billboard advertisements from interchange service starting in 1937. Cars could still bear the names and logos of the shipper leasing the car—such as Anheuser-Busch

— but not specific products like Budweiser. Third-party ads were also banned. With the rebate gone, the incentive for elaborate paint schemes also disappeared. Since wood-sided refrigerator cars required frequent repainting, billboard reefers were gone from the rails within a few years of the ICC's ruling.

O Do you know of a cement/glue that works with polypropylene plastic?

Curtis Elkin

The Loctite Plastics Bonding System is compatible with various plastics that are difficult to bond, including polypropylene, polyethylene, and Polytetrafluoroethylene.

The two-part Loctite Plastics Bonding System contains an activator/primer and glue. Before using the products, make sure the parts that need to be glued are clean and dry.

Then, working in a well-ventilated area and wearing eye and hand protection, apply the activator/primer to both gluing surfaces and wait 60 seconds. Next, apply the glue to one gluing surface and press the parts together. Hold the joint for 30 seconds.

I've had good luck using the Loctite Plastics Bonding System to repair broken handrails on diesel locomotives. You can find the two-part system at most big-box retailers, hardware stores, and home-improvement centers for less than \$10. — Cody Grivno. senior editor [III]