

About our DCC columnist

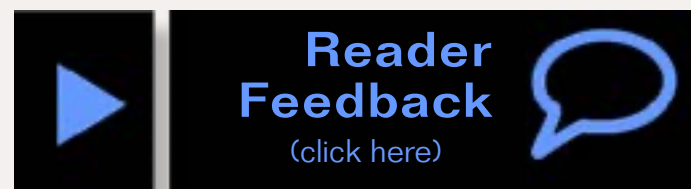


Bruce Petrarca is a well-known expert on all things DCC.

[Click here](#) to learn more about Bruce.

DCC Impulses: Do I get an installation done?

Tips on getting your locos running on DCC without doing it yourself



There really is help out there! ...

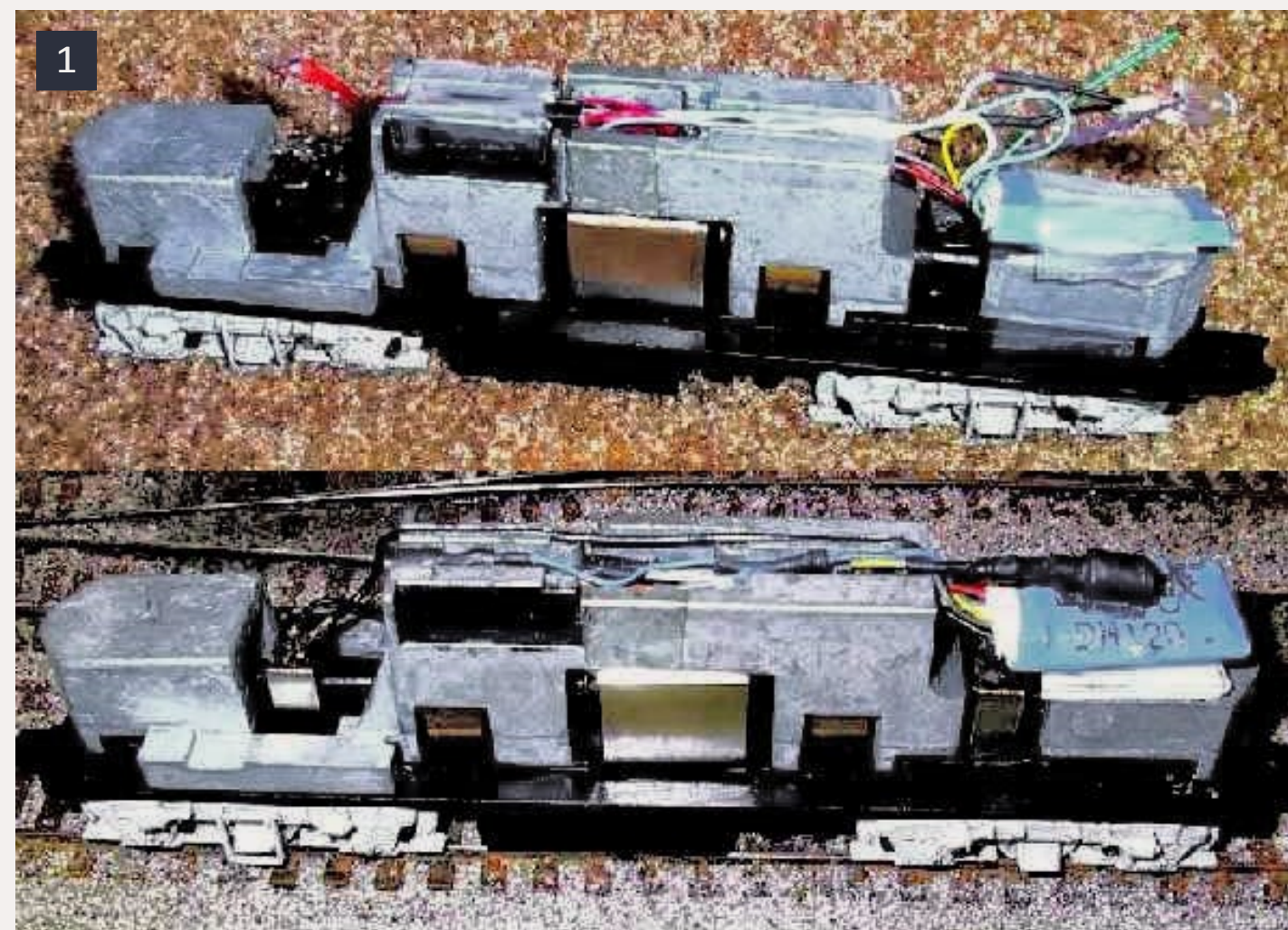
Now that I got to push a few paradigms with my *How Do I Get the Sound Out?* column (model-railroad-hobbyist.com/magazine/mrh-2012-08-aug/dcc_impulses), I feel that folks now know enough of how I think, and I'll be sharing some installation notes in a new sidebar. Starting this month, the after-word from my column may be more SMP thoughts or, like this month, ideas "From Mr. DCC's Workbench". This month, we will be thinking outside the box with an HO-scale U-boat. Check it out on page 34.

A recent email from a MRH reader got me thinking about this month's subject.

Okay, you've got a loco and you want DCC (with or without sound) installed into it.

In some of my first columns, I covered what it takes to do an installation yourself. You may or may not have the desire, experience, tools or time to do so.

Let's talk about other options.



1: Cleaning up an installation, the before and after photos.

A friend

Many folks do DCC installation. Some are hobbyists who do work for friends. Some are part time and some full time professionals.

I'd like to say that they all do good work, but my experience shows otherwise (1).

Digging back in my history photos, I came up with one from 2001 (1). It is a Life-Like GP18. The Life-Like bulbs had burned out and the customer

sent it to me for LED installation. When I looked inside, I couldn't just do LEDs. I had to clean it up, as shown in the lower half of the photo.

Now, I don't know who did this installation, but I know that it wasn't the owner. By the way, the owner said that the loco ran much more reliably after I installed the LEDs and reworked the installation. I suspect a cold solder joint was the culprit.

Don't just assume that your friend who installs decoders takes the time

or knows what is needed to make a quality installation. You might discuss my standards (mrdccu.com/services/workmanship.htm) with him before hand. If he thinks I'm out of my mind, then you may want to reconsider having him work on your baby.

Excluding plug-in installations, I spend about an hour on a non-sound installation. Sound can run up to three hours. There are the few that just don't want to cooperate. I've spent as much as 10 to 12 hours on an occasional installation.

Since I had already quoted the installation based on a couple of hours labor, I didn't make much on those. Included in these estimates are the installation

itself, programming the decoder and taking care of the paperwork.

A local dealer

You may very well have a local dealer who installs decoders. Talk with them before you just leave your brass steamer with them.

I suggest you ask to see some of their work *unassembled*. Look for things that will add to pleasure of ownership down the road. In addition to the workmanship standards I mention on my web site, look for things like connectors so that you can separate the shell from the frame for servicing.

Ask them how many installations they do a year. Do they have a dedicated

person (or more) who does the installations? What is their warranty on their work? What is their backlog? Is there someone you can contact that they have done work for, say a year ago – preferably with a loco similar to the one you are shopping?



2: HO loco in an Athearn box.

That brings me to a critical point. Most of the quality installers I know are up to their ears in work, even in the current economy. If the person you are talking with doesn't have a lot on his plate, I'd wonder why.



3: Extra padding kept the two locos in this box from being damaged.

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Many dealers handle local and mail order installations. You might ask them if they do and what has priority in their queue.

Sending it out

Some times you cannot find what you want locally and will need to send your loco away to get its installation done. I have a lot of experience being on the other side of this sort of transaction, as I have done mail order installations for over a decade. I started Litchfield Station as an installation business and added systems later. Since I sold the business, I still do a limited number of installations.

I'll use the term mail in this column to refer to any of many ways of actually transporting the locos around, including UPS, FedEx, etc.

How do you maximize satisfaction?

This isn't really any different that working with a mail-order dealer or a local one, except you cannot go to over and visit your loco while it is waiting, if you mail it away.

Have a thorough dialog with the installer *before* you send a loco to him. Ask the same questions you would with a local dealer. This is a job interview and you are the employer. Make sure you are satisfied that the person you are hiring will do what you want.

Send your locos in the original manufacturer's box, if at all possible. Something close doesn't cut it. The majority of locos being sold today spend their early days in cargo containers. The manufactures spend a lot of time and money on packaging to withstand shipping. Use it.

If you don't have the original box, you can make up one adequate for shipping with a similar box and some pliable foam. The Kato U boat discussed in this month's "From Mr. DCC's Workbench" is for a local modeler, so it won't be mailed. However, how this Kato model fits into an Athearn blue box shows one way to roll-your-own box (2). If it were being shipped, I'd

want a thin layer of foam on each side of the loco, protecting it from the box.

If the original box has a cellophane window, put a bit of shirt cardboard inside it. If the loco moves around, it will punch through that cellophane in a heartbeat.

I recommend locomotives being packaged this way even when delivered to a local dealer. They may get knocked around a bit on the shelf while waiting their turn on the bench. Cushioning always helps.

Over package your loco(s) to send them: at least 2 inches of padding on all sides. Yes, this means some pretty large boxes. The shippers can be pretty rough on the boxes (3).

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(Photo from our N-Scale layout)

If the installer you select has a long lead-time, discuss when he wants you to send your loco. Most of us don't have a lot of storage room and don't want the responsibility of many customers' locos sitting in our possession. I typically notify a customer when I'm about a week or two from starting on his loco. That way, he can send it to me and I have it when I'm ready.

Some installers may always want payment up front. Some may want advanced payment in certain cases. Why? Well, especially with a bunch of sound installations, the cost of parts can add up. Today, I spent almost \$1000 on decoders, speakers, LEDs and wire.

Some locos require purchasing outside services, like frame machining, before the installation can start.

Some installations require putting more dollars into the loco that it cost originally. I think of the HO-scale EMD critters (4). They are nice, but only have two points of contact for each rail. To get reliable DCC operation, I use a Lenz Gold decoder and UPS module – about \$100 worth of electronics plus labor into a \$50 model.

Communicate

I found that the most important thing I can do with my customers is to communicate and manage expectations. When we don't understand what each other wants and when it will possibly be done, that's when things



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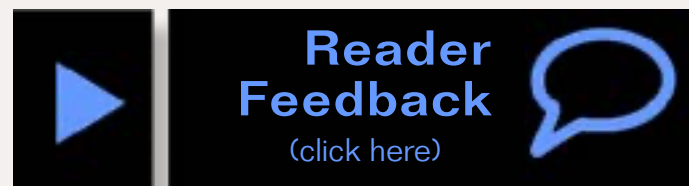
4: EMD Critter on PCMRC layout.

go awry. If you aren't getting communication from your chosen installer, call him. He should communicate with you, but human nature causes all of us to sometimes shy away from what we should do and just do what's comfortable.

I hope you enjoyed this slight sojourn away from the technical bent of the last few months into the more philosophical realm.

Join the discussion of this column by clicking the Reader Feedback link here. While you are at it, I hope you will feel free to vote AWESOME for this column.

I wish you green boards until next month!

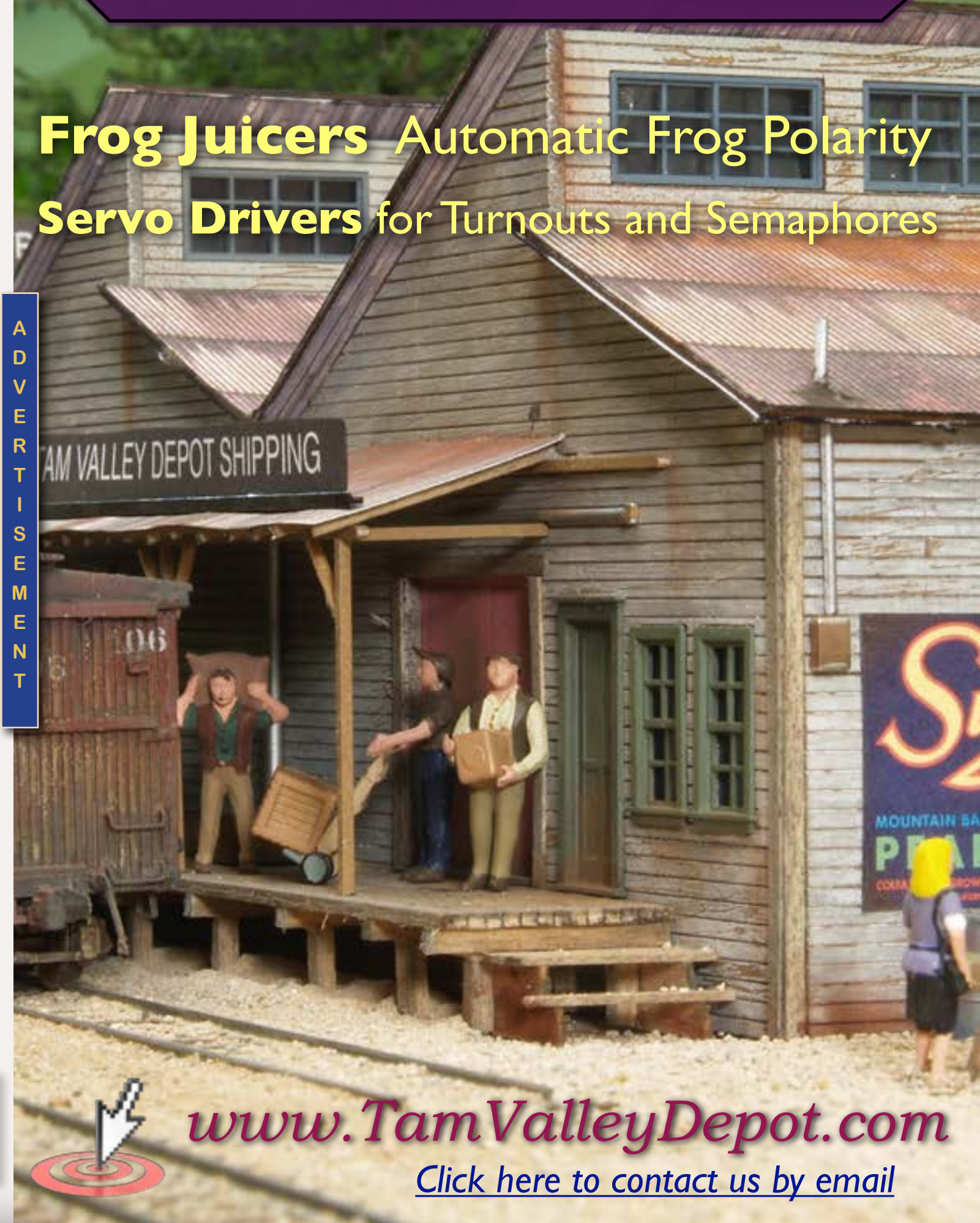


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From Mr. DCC's Workbench – Thinking outside the box on a Kato U boat sound installation

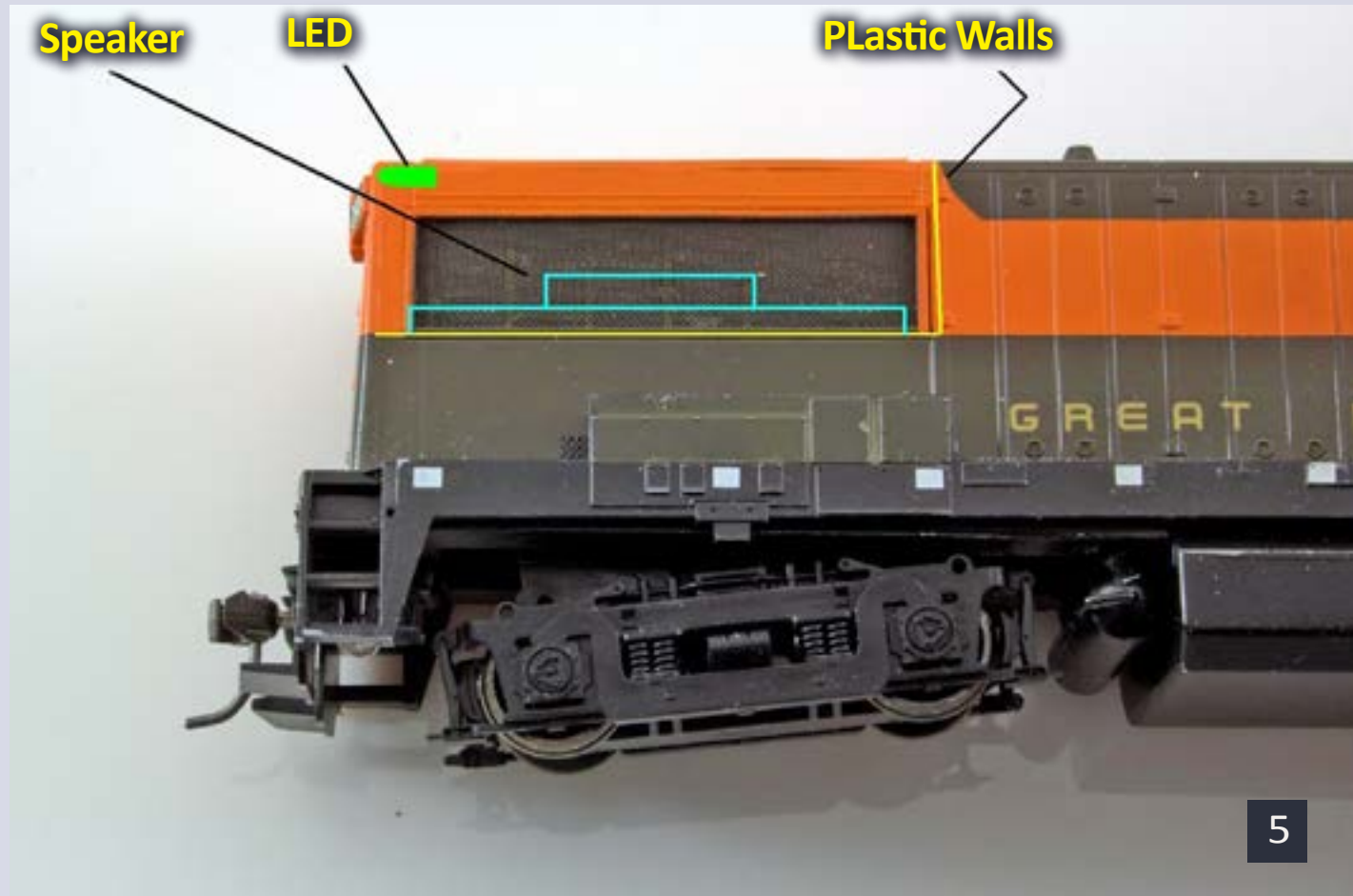
I recently completed a sound installation on an HO locomotive.

The loco had open grilles on the side, making it a perfect candidate for my out-of-the-box installation, as discussed in my August column (mrhmag.com/magazine/mrh-2012-08-aug/dcc_impulses).

After installing a LED for the rear light, I built a baffle out of 0.04-inch styrene, which allowed the speaker to be mounted so that the positive pressure went down out the trucks and the negative pressure came out through the open side grills.

For more information on how this was done and a sound comparison, click on the related video on this page.

This is an outside-the-box design, where there is no box containing the negative pressure. In fact the negative pressure is the primary sound heard outside the loco, being reinforced by the positive pressure coming down through the trucks and out.



5: Speaker and its baffle in an HO locomotive.