BANTRAK News
A Monthly Newsletter for BANTRAK Members • Volume 34 • Issue 6• June 2021

The Engineer's Cab: LeRoy Brandimore

Hello all.

Here we are, June and looking forward to first in-person meeting in a year. Maybe we can have our yearly picnic in the next few months. Now we just need the Cow Palace at the State Fairgrounds to open for public use. Keep an eye of the State Fair, which is August 26 to September 6. The next Great Scale Model Train Show is currently scheduled for the first weekend in October.

Several of us are putting together T-Trak modules and this should be a nice addition to our space at the GSMTS in October. I am working on a few modules and am hoping to see what else will be there. So, get those new modules ready, and don't forget those N-Trak modules. We should have a good display.

Later in October the 2021 NMRA Mid-Eastern Region (MER) convention will take place at the Delta Hotels Baltimore Hunt Valley, part of the Marriott Hotels, October 21 – 24. We could have a part in this. Alan Del Gaudio will keep us up to date about this.

Keep Tracking.
LeRoy Brandimore

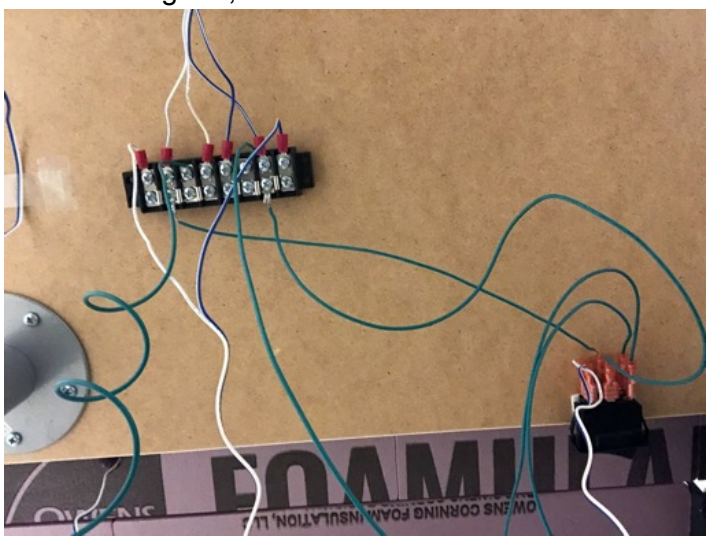
Quarantine Time = Modeling Time! : Ethan Bernstein

DC or DCC: Why have to choose?

When designing and constructing a layout, the decision of how to power the trains can often be a difficult and sometimes complicated matter. Especially with today's sound equipped locomotives, deciding to run a layout on DCC seems all too tempting, but what about all of the classic DC engines in favorite livery or that have been super-detailed and weathered that will now be demoted to the display shelf or stored back in their boxes? Imagine, if with a flip of a switch, the layout could be changed from DC to DCC. Well, it is possible, and is in fact very simple to do. I am sure many of you are already well versed and much better acquainted with the nuances of electronics, but for those who are not as well informed or experienced, or just frightened at the prospect of more layout wiring, I will explain in as simple terms as possible the process of setting up a layout to run on either DC or DCC without having to disconnect and reconnect wires every time.

Old and new: A 26-year-old pair of DC Kato Conrail C30-7s await assignment alongside 3-year-old sound-equipped Scaletrains.com NS Dash-9 and ET44AH. With just a flip of a switch (and a switch track), either consist can be used to haul the Roadrailer train in the background, and neither must be sent to storage.

Basic Layout Wiring: In order to ensure smooth operation under both DC and DCC, it is first essential to ensure track wiring is sound and sufficient. For layouts larger than a small 2'x4' loop, I would recommend spacing power feeders every six to 10 feet, depending on personal preference. On my layout, which is roughly 10'x12', I space power feeders about every nine to 10 feet and have had no issues with very smooth and reliable operation under either power source. If there are lots of switch tracks off the mainline, especially as is the case with Kato turnouts, make sure the feeders are spaced around the switch tracks such that there are no major power drops under DC operation, which will also ensure smoother DCC functioning. My layout, which is essentially a large, curvy continuous loop, has four drop feeders spaced roughly every 10 feet connected to a main bus wire (I spaced my feeders according to the density of switch tracks so that operation in the yards and spurs is smooth). Once the basic trackwork and bus wiring is complete with the appropriate number of drop feeders, test the layout under DC operation, as issues and power drops will be easy to detect. After any necessary tweaks, test the layout under DCC control. When I built my layout, I used all power-throw switches off the main line so that I could keep DCC engines parked on a siding or in the yard while running DC, and vice-versa.

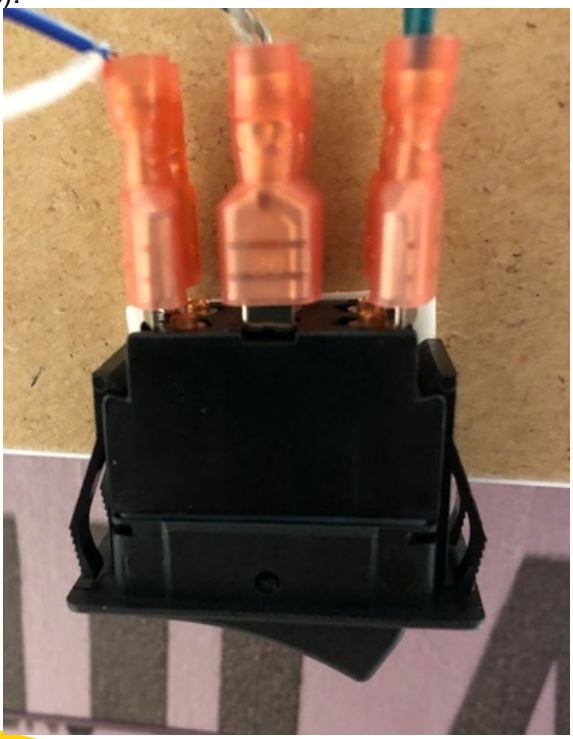


. Pardon the jumble. Although it looks somewhat chaotic, it works, and no soldering is required. The main bus between the DPDT switch (black box at bottom right) and the rest of the layout consists of two green 16 awg wires screwed into the terminal strip. The other side of the terminal strip is all of the feeder wires from the track, with the polarities separated between the two sides of the strip.

DPDT Switch: Once the layout wiring is sound, the next step is to connect both power systems to the bus via a double pole double throw (DPDT) switch.

Quarantine Time = Modeling Time! : Ethan Bernstein

These switches can be purchased at hardware stores and are very cheap. They come in two main switch variations: a toggle switch and a sturdier flip switch, I prefer the latter. Once a DPDT switch has been chosen, make sure to also purchase the necessary female plugs that fit the male metal brackets on the bottom of the switch and that are properly sized for the bus wire being used. To install the switch, begin by stripping the ends of the two bus wires. Twist the ends of the stripped bus and slide a plug over each, crimping the plug with a crimping tool (most wire strippers have a crimping feature on the end; the box for the plugs will say what position on the crimping tool works best to crimp the plug). The crimp should be strong enough such that the wire does not pull out when tugged. Plug the bus wire into the center two brackets on the back of the DPDT switch. Keep note of the polarity of the wires, as it is essential polarity is kept constant throughout the bus wiring. Repeat the plug installation process for the bus leads attached to the DC and DCC systems. Plug the bus wires from the DCC system to the pair of male connectors on one side of the switch, and the DC bus wires to the pair on the other side, ensuring polarity from the systems is aligned with the main bus (center two plugs).



The DPDT switch is a simple device with lots of possibilities. The pair of terminals down the center of the switch is the main bus. The pair of wires on the left are from a Kato DC power pack, and the pair on the right is connected to an NCE Power Cab system. With a simple flip of the switch, the layout can be easily changed from DC to DCC and back without any rewiring. I secured the switch to the benchwork with double-sided tape.

Test and Play: The center position of the switch is the “OFF” position. When the switch is pressed to one side, that enables power from one of the systems to flow to the tracks, depending on to which side each system is wired. Make a label if necessary to keep track of which side of the switch controls which system (pun intended). When one system is desired, simply plug the wall plug into an outlet, flip the switch, and voila, the trains run! Note: I only keep one system plugged in at a time to negate any potential issues or accidents, as well as to help me remember which system I am running.

For those of you newer to the hobby, or at least the electrical aspect, I hope this article has inspired the return of some of those older DC locos back to the layout alongside their new sound-equipped compatriots, or maybe made the task of incorporating DCC much less daunting.

Happy modeling (and wiring),

Ethan Bernstein

BANTRAK 2021 Calendar

July 6, 2021
Newsletter content deadline
We need content please submit your articles by the deadline.

June 13, 2021
Club Meeting
Location: Eric Payne's home
619 Elizabeth Rd
Glen Burnie, MD 21061
(Bring your own chair as we will be outside)

July 18, 2021
Club Meeting
Location: Chris Quinlan's home
500 East Maple Road, Linthcium Heights, MD 21090
(Bring your own chair as we will be outside)

October 21, 2021 - October 24, 2021
2021 NMRA MidEast Region Convention
Location: Mount Clare Junction
See Alan Del Gaudio for details

BANTRAK Membership: Al Palewicz

BANTRAK does a significant amount of charitable activity, although we rarely think of it that way because we get pleasure out of it. When you think about it, that is as it should be with all giving from the heart.

What is our charitable activity? Our major participation is in the B&O Museum's (which is a charitable organization) Annual Festival of Trains. Our display has been a major draw for people to come to the Museum for many years, both recent and in the past. There are plenty more examples, this is just one.

Please contact Treasurer Tim Nixon for more information regarding your membership status and roster questions or contact Al Palewicz with general questions.

Member Benefits:

- Sharing of your knowledge (railroading and modeling) with others of similar interests
- Access to railroading and modeling knowledge of other members
- National exposure and recognition of your endeavors in modeling
- Hands on activities: Club modules - track, wiring and scenery. Raffle layout - track and scenery Members' layouts
- Recognition as being part of a Nationally known club.

Train Spotting: Leon Sorge Train making a drag.

BANTRAK was founded in 1983 as the Greater Baltimore N-Scale Associates. Begun as a “round robin” group to share skills and experiences, we have expanded our focus to include participation in many diverse activities to promote model railroading in general and N-Scale model railroading in particular. Activities include participation in local, regional and national shows, meets and conventions. BANTRAK membership includes membership in the national NTRAK organization.

The BANTRAK Newsletter is the official publication of Baltimore Area N-TRAK (BANTRAK), Inc.
This is ***your*** newsletter! Please send articles, photos, and suggestions to newsletter@bantrak.net
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