
DCC CORNER

DCC BASICS - PART 3

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Power districts are often overlooked in DCC. “Why do I need to separate my layout into different power sections”? “Isn’t that why I decided to use DCC”? Well the answers are yes and no. Yes you went to DCC to get away from flipping switches to make your trains run around your track. But we are talking about isolating sections of track from one another in the case if a train derails and it shorts out, it will keep the rest of the layout running. This is extremely useful and highly recommended for large layouts. I would also suggest it for medium and even some small layouts as well.

By separating the layout into power districts it also makes trouble shooting easier as well. Since you know that problem 1 is in power district E, you can narrow down where the problem is.

Picture this, “you are operating a highball out of the near town and you are moving along at a pretty good clip to stay ahead of the next priority train, all of a sudden, BAM your train stops on a dime. You look around and wonder, “Why did this happen”? You wonder around asking others if they know what happened. Then you realize that the switcher in the yard ran a turnout and created a short. This is a good example of why you should have separate power districts. As a good rule of thumb, all yards should be on their own districts. As far as the main line and trackside industries, you will have to decide what you want. Make sure you keep a good record of this for troubleshooting.

There are a few ways of creating different power districts. First you must isolate each district from each other. Many of the DCC manufacturers have add on power boosters. If you have a medium to large layout, I would highly suggest you purchase at least one extra booster. This will help ensure you have plenty of power to all of the track. Most manufacturers also make an add on power district divider. This works by you running your power wires from the command station or booster into the input of the divider. Then depending on how many outputs it has you run those to the separate districts. Then if the divider senses a short in one of the districts, it will shut down that section until the short is removed. These are also great for added command station / booster protection. The DCC systems have built in circuit breakers. But would suggest not relying solely on these. After all you invested money in the system why not have to replace something that cost at least half the amount of the system.

Another advantage with having different power districts, with some systems they can help you locate a car or locomotive or train via a fascia panel

or computer. When purchasing a DCC system please look at these options and if you think you may ever want to use them. If so you may want to spend the extra money on it up front.

In Part 4, we will discuss the different types of decoder and functions and programming of them. If you have any questions please [email](#) me and I will be glad to give you my information or thoughts.