

Introduction to DCC Part 1B

After Review of Blocks

Presented by Paul Wussow

**Controlling our trains
using
user friendly technology**



What makes up the DCC SYSTEM

DCC stands for Digital Command Control, a system of components that allow a throttle to control a device by that device's address. In most cases that would be a locomotive by the locomotive number. This is accomplished by sending digital data from the throttle to the locomotive according to a standard format of information transfer. The NMRA has set this standard and we will learn more about what is in the standard as we move deeper into the clinics.



Throttle or Cab

A single device which the operator uses to control a train or other device (the Human Interface)



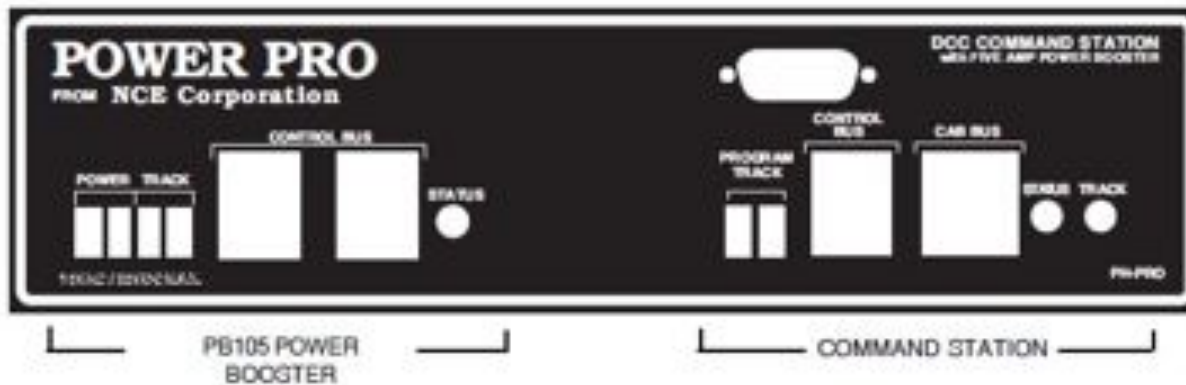
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Command Station

The computer device or brains of the system which communicates with the throttle and outputs a data stream of information according to the NMRA standard to a booster.



Power Booster

The Booster is the power amplifier of the system that accepts the data stream from the Command Station and combines it with power from an external power supply to provide data and power to the track.



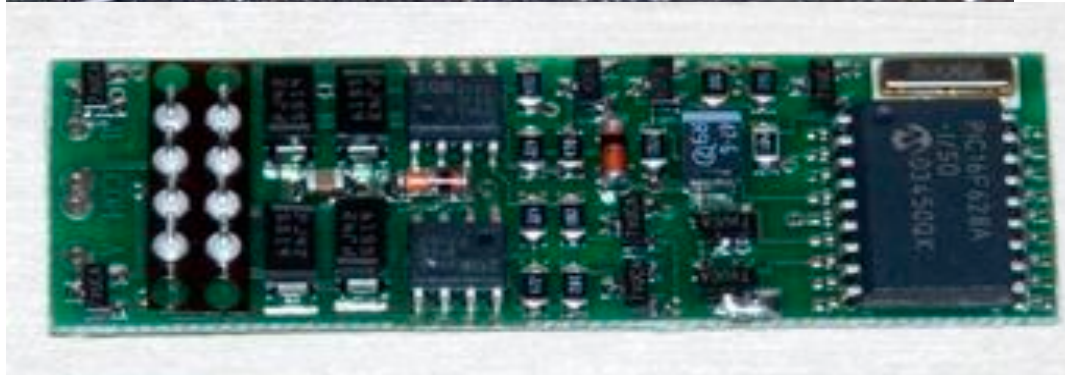
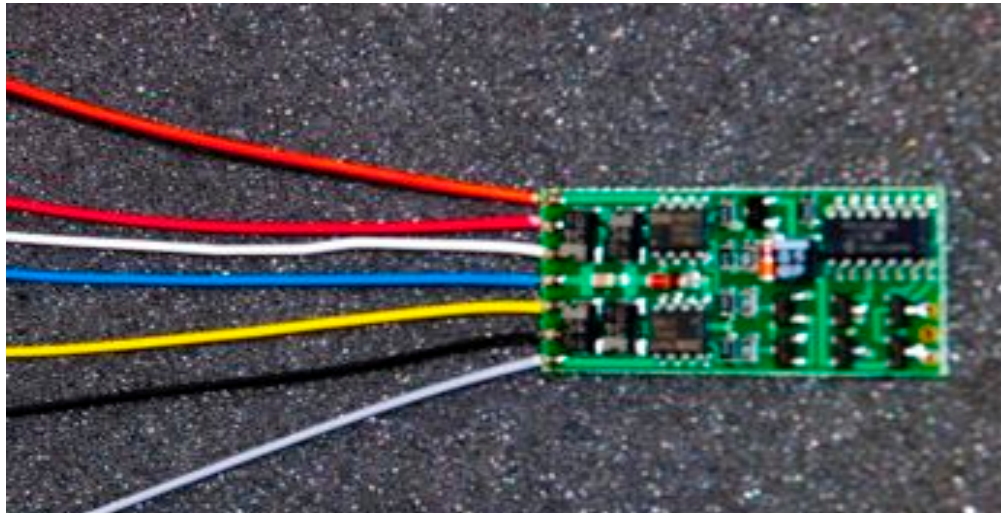
Power Supply

One or more power supplies supply power to all of the above components.



Decoder

The decoder receives the information and power from the Booster via the track or power buss and responds to commands addressed to it. Simply, a locomotive decoder will respond to the address of the locomotive and move forward or reverse at the speed sent from the throttle via the Command Station. The operator may also send controls to turn lights on and off and, if the locomotive is equipped, control sound. Stationary decoders may be used to operate turnouts and signals or other accessories.





Where are all these Components?

In many DCC systems today some or all of the components are combined in one or 2 boxes.



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**Where are all these Components?
Larger layouts use additional boosters and breaker districts**



End of Introduction to DCC Part 1

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