RAIL-LYNX™ COMMENTS ON THE NMRA DCC STANDARD

The name DCC, which stands for "Digital Command Control", strictly speaking should not have been used for the NMRA system specification. Many non-DCC systems currently on the market, including *RAIL-LYNX*, are digital command control systems. This means that signal transmission to the locomotive is digitally coded (via ones and zeros) rather than via an analog signal that controls by varying the signal strength.

A digital coded system is inherently more secure and noise immune than an analog system. A digital system can also convey the much more complex messages required for the advanced features now being requested by customers.

The DCC standard is just a specification (copied from the LENZ system used in Europe) that only defines signal levels and data on the track. This basic standard is still changing, as manufacturers developing new ideas and features that had not been foreseen, have forced the standard to change in order to accommodate them. Most important is that the standard does not define the signal format used to get information from the hand-held throttles (including the infrared and radio) to the black boxes that then connect to the track, where the DCC standard is used.

The suggestion that all the manufacturers products are interchangeable is not completely true. Yes, decoders from one company will operate on another's system, but the black boxes from one manufacturer may not support all the functions of another manufacturer's decoder or vice versa. In addition, the hand-held throttles of each manufacturer operate on a "bus" that is unique, as are the infrared and radio throttles. Consequently, you cannot mix different manufacturer's throttles and/or black boxes.

Should you risk buying a system that is not NMRA DCC? That is a difficult question. If your concern is that other systems are different from the NMRA standard, and, therefore, may not survive in the market place, then you should look at the Kadee coupler manufactured by Kadee. The NMRA standard coupler is supplied on just about all locomotives or cars you buy. But the Kadee coupler has become the defacto standard and is used by almost all serious modelers.

A good product or design will generate competitors, as with Kadee. At least three new sources of Kadee compatible couplers have joined the market. This shows that just because it is an NMRA standard, does not mean that it is the best design and should be blindly accepted as the only way to go. New technologies continue to emerge, and to reject new or different designs solely because they are not NMRA compatible will restrict the growth of the hobby.

Is standardization good? Yes, in some instances. The gauge of the track and the basic 12 volts on the track (now changed by DCC) are both good standards, especially the standard for defining the connections on the locomotive plug for command control. This last one is great, as it eases the installation of any manufacturer's command control system.

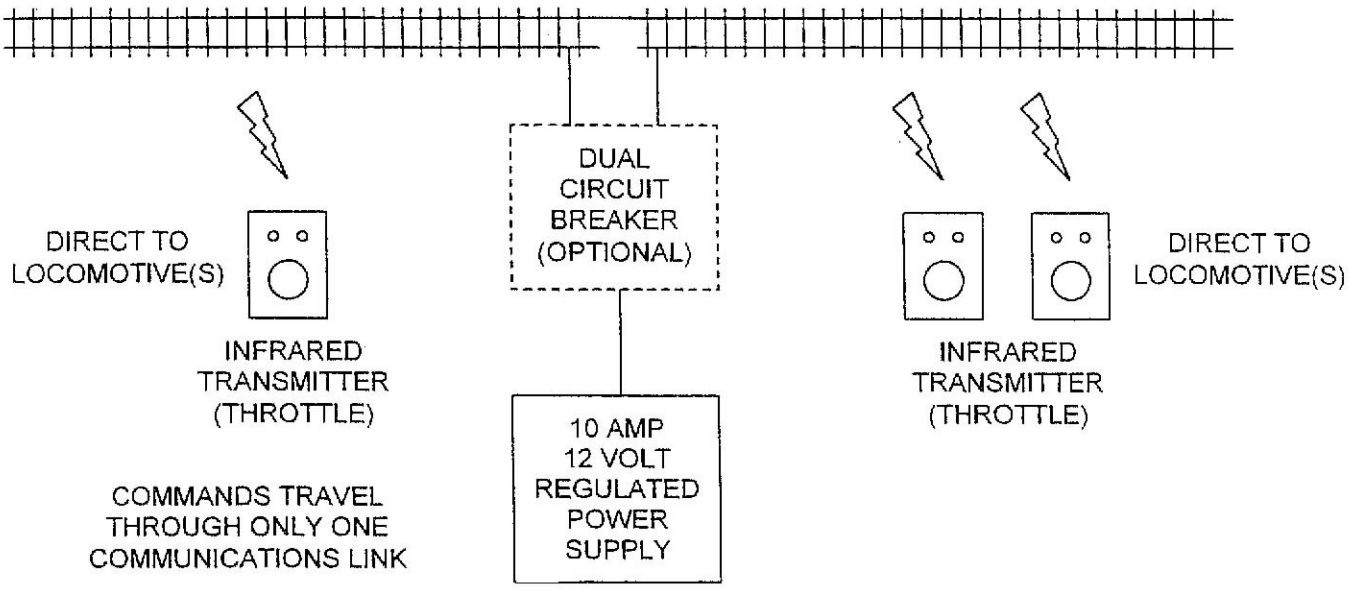
Layout wiring should be well planned for any system, but with DCC, additional throttle plug-in plates are required, with the associated wiring and cost.

The *RAIL-LYNX* system, with direct communication between the controller and the locomotive, does not require high quality wiring to operate correctly, as the only side effect of bad wiring will be the locomotive slowing down in areas where the track feeders are far from the power supply. In addition, because only a basic12 VDC is required on the track, it may be possible to use an existing power pack.

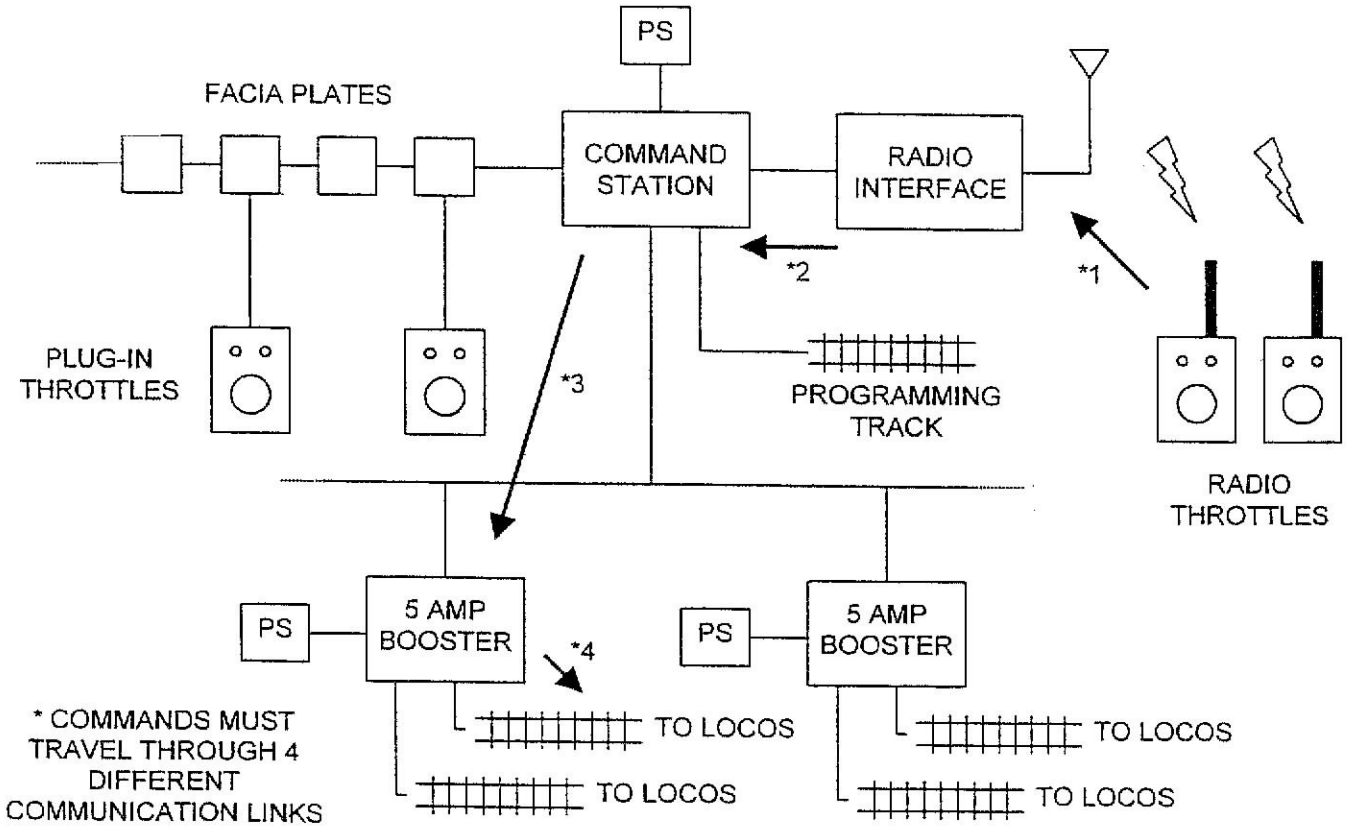
Because of this, *RAIL-LYNX* is "portable". It can be taken it to almost any railroad and just set on the layout, set the power pack to 12 VDC, and the system is ready to run. Because it only requires 12 VDC, *RAIL-LYNX* can be operated on most existing command control systems without either system having any interaction with the other.

In conclusion, our opinion is that the DCC system has no major advantages over any other command control system on the market. The buyer simply should look at the features that are important to him or her and then decide.

We feel that the advantages of *RAIL-LYNX*, especially being inherently cordless, make it one of the more flexible and operator friendly systems available today. In addition, it has the lowest price for a full function system of any manufacturer. In addition, we do not have sub-equipped systems with limited features. The system has all of the advanced features of any DCC system. We do not offer limited feature items!



***RAIL-LYNX* SYSTEM BLOCK DIAGRAM**



TYPICAL DCC WIRELESS SYSTEM BLOCK DIAGRAM

COST CAMPARISON BETWEEN *RAIL-LYNX* AND DCC SYSTEM

10 AMP *RAIL-LYNX* SYSTEM: Equipment required for wireless operation on railroad (2 operators, minus receivers)

12 volt 10 amp Power Supply		$59.95
Optional Dual Circuit Breaker		$24.95
Two Hand-held Transmitters (wireless throttles) @	$139.95	$279.90
	TOTAL	$364.80

10 AMP DCC SYSTEM: Equipment required for wireless operation on railroad (2 operators, minus decoders)

For price comparison, fill in the blanks from the pricing sheet of the DCC system manufacturer you have chosen.

Command Station		$_____	
Command Station Power Supply		_____	
Radio Interface		_____	
Two 5 Amp Boosters (2 required for 10 amps)	@_____	= _____	
Two Power Supplies for Boosters (2 required for 10 amps)		@_____	= _____
Two Hand-held Wireless Throttles	@_____	= _____	
Required Number of Fascia Plates (required to select loco) (Normally spaced every six feet)	@_____	= _____	
	Total	$_____	

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Revised: 3-14-2014