



What is DCC anyway?

DCC?

- ◆ Digital Command Control
- ◆ NMRA command control standard
- ◆ Supported by multiple manufacturers
- ◆ Offers a simplified lower cost wiring system.
- ◆ No computer experience needed.
- ◆ Basic and advanced systems available.
 - Low \$ entry level to full club systems.

Is my layout a candidate?

No Yes

- ☐ ☒ If you run a single loco and want independant control of lights or other functions
- ☐ ☒ If you run 2 or more trains at a time
- ☐ ☒ If you (want to) have yard operations
- ☐ ☒ If you (want to) have helper operations

What can DCC do for me?

- ◆ No more “who’s got my train?”
- ◆ Run trains not the control panel
 - Guest operators can run trains easily
 - Simplify or eliminate control panels
- ◆ Walk around control
 - Plug around (with speed/direction memory)
 - Cordless throttles
- ◆ Track can be used to distribute power and control
 - Locomotives
 - Turnouts
 - Signals
 - Other accessories

What can DCC do for me? continued

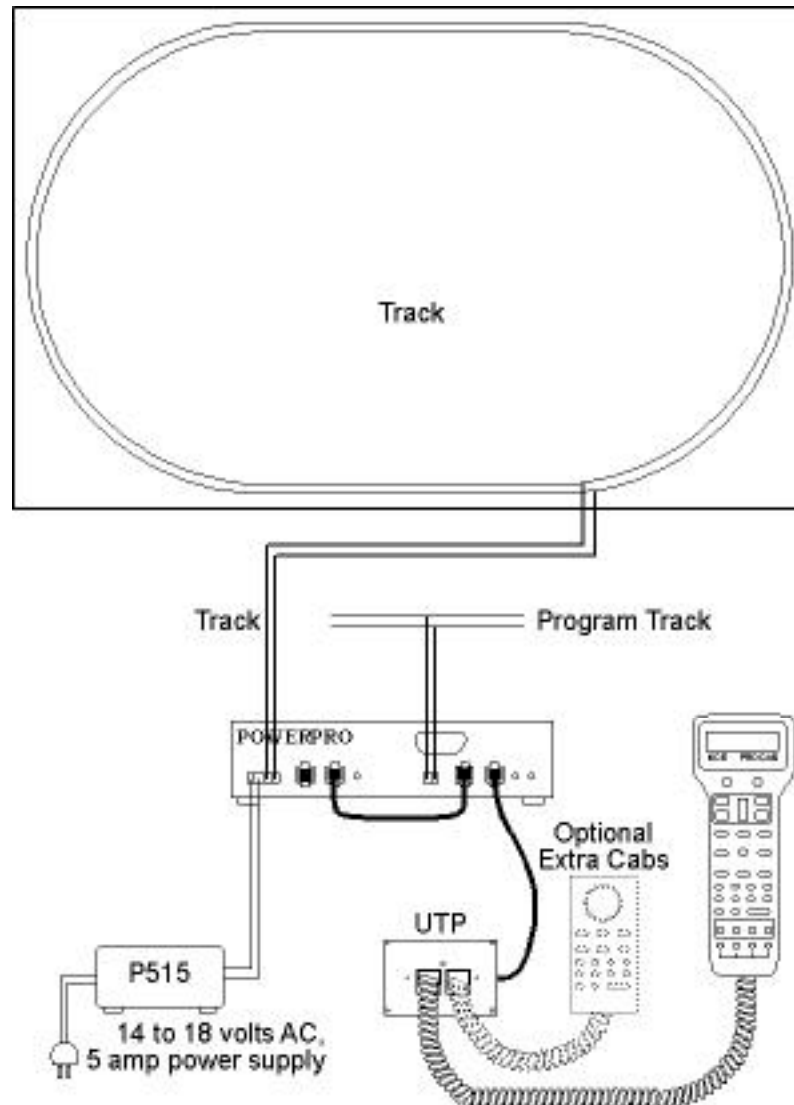
◆ Fine tune locomotive performance

- Adjustable start voltage/maximum speed
- Speed matching for good MU operation
- Smooth steam loco operation with “Torque Control”

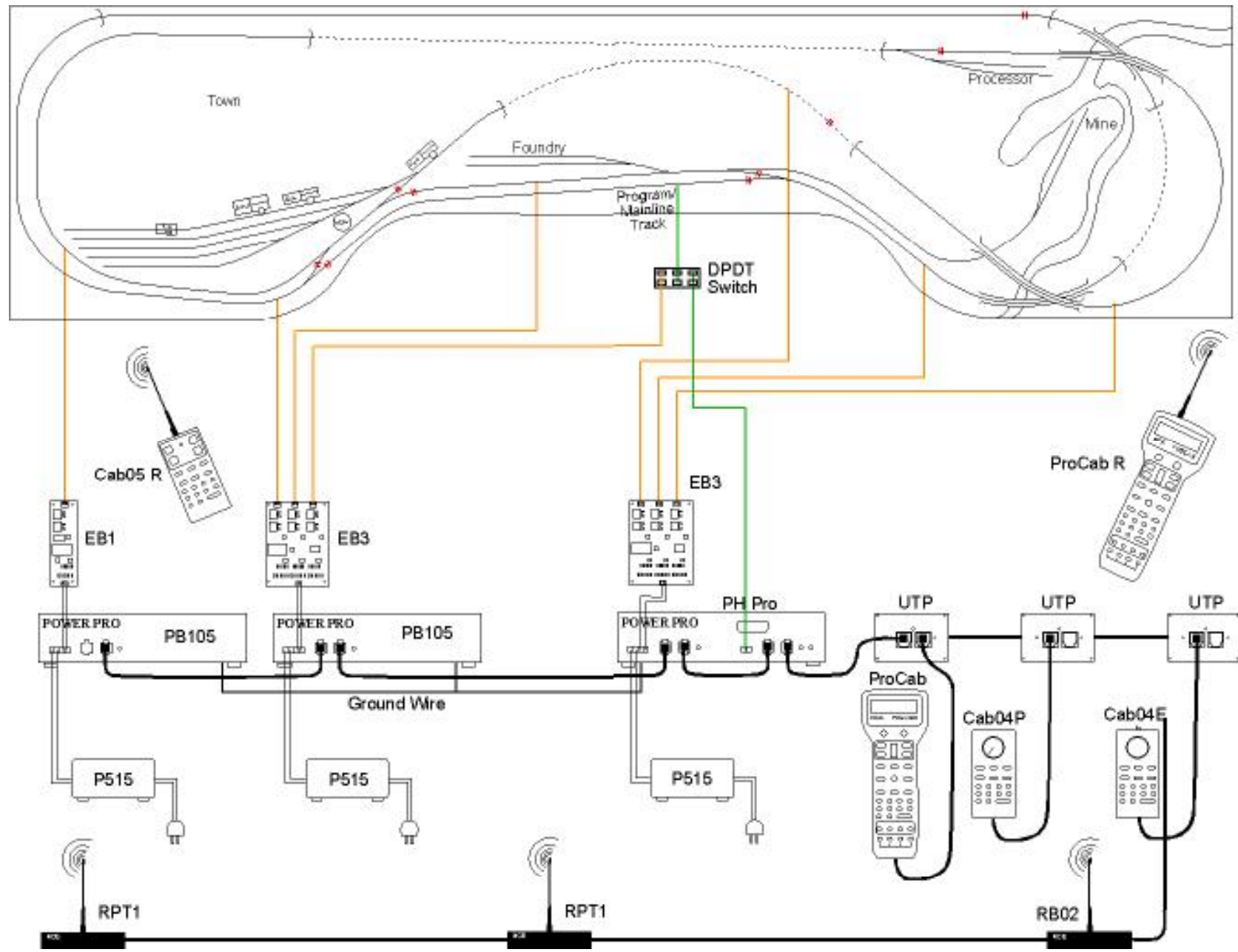
◆ Prototype Lighting effects

- Dimming
- Mars, Strobes, Beacons, firebox flicker
- Operating ditch lights

Typical DCC system setup



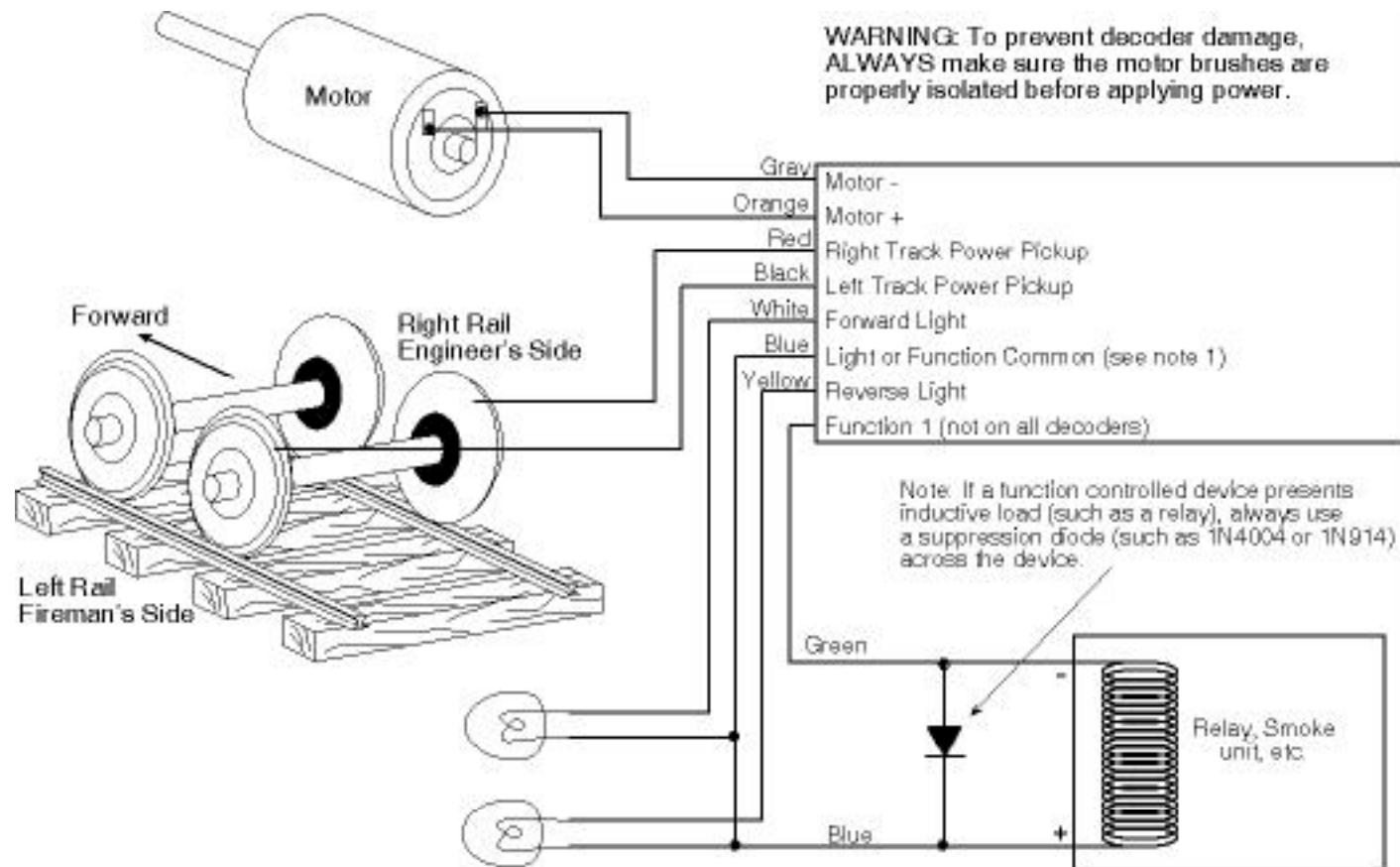
Advanced DCC system setup



Decoders

- ◆ Gives each locomotive a unique “Address”
 - Address can be 2 digit or (optional) 4 digit. (Set to Loco #)
 - Detects DCC commands and implements it when “Addressed”
 - Motor Speed, Function output, MU, etc.
- ◆ Drives motor
 - Low heat pulse power for good starting torque and running
 - Implements optional Momentum and Speed Tables
 - Modern high frequency quiet drive (Silent Running™)
- ◆ Drives “Function” outputs
 - Headlights, lighting effects, etc.

Typical Decoder Wiring



Considerations before you buy

- ◆ How much power do you need (Power Budget)
 - It's not size but quantity
 - Allow 1/4 - 1/2 Amps per locomotive
 - About 10 HO Scale locomotives per 5 Amp booster
 - Sub-divide booster districts into separate power districts
 - Use EB1 DCC circuit breaker for each power district
 - a short in one power district will not shut down the whole booster
 - 10 amp boosters are not for HO
 - 220 Watts is enough to melt code 70 rail
 - locomotive wires vaporize if a short travels through the loco wires

Considerations before you buy

- ◆ How many operators will you have?
 - Probably more than you had with DC operation
 - If it's easier to operate, more operators will show
 - Now you can really have multiple trains moving in the yard or in a town
- ◆ What kind of cabs will you need?
 - Intermediate cabs - simpler
 - Full Feature Pro Cab
 - Engine terminal operator - setting up consists
 - “Master” operator stop the fast clock, etc
 - Cordless – Intermediate and Pro Cab

How do I get started?

- ◆ Don't buy anything (yet)
- ◆ Try different systems to see which suits you best - get the one YOU like.
- ◆ Try running locomotives, programming locomotives, etc.
- ◆ Look over our catalog to see the extent of our systems and decoders