LNRP

LocoNet Repeater Module

Isolates and Protects LocoNet Layouts
PS14 Power Supply Required

Fits all LocoNet systems

Features:

- **Isolates** segments of your LocoNet layout**.**
- **Protects** segments of your LocoNet layout**.**
- **Extends** large LocoNet installations of more than 20 devices.
- **Acts as a Diagniostic tool** if LocoNet network problems occur.
- **FCC Part 15, Class B RFI compliant**

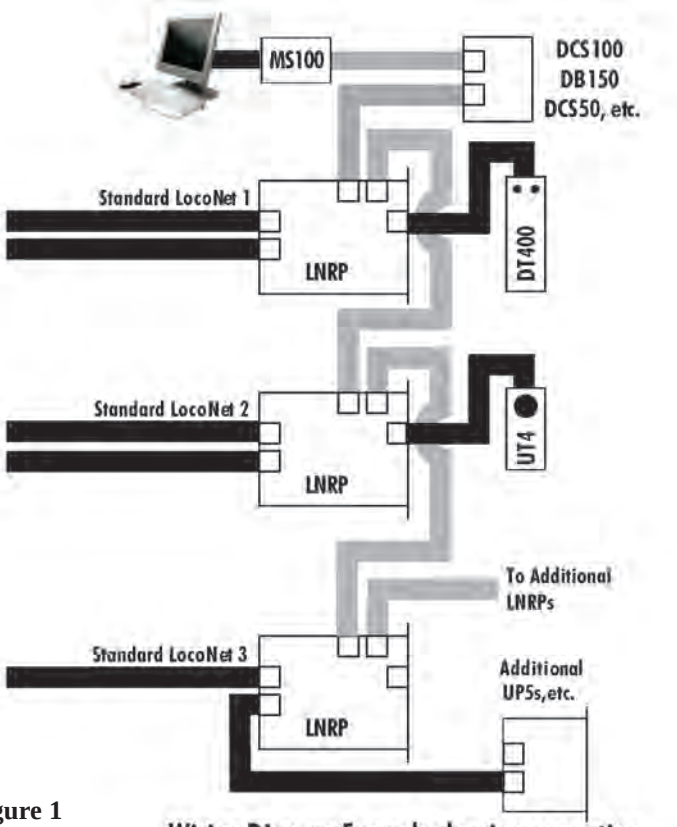

Figure 1

Wiring Diagram Example showing separation of protected ( ) and standard ( ) LocoNets

Parts List:

1 LNRP Repeater
1 Instruction sheet

LNRP Installation

Figure 1 shows the general arrangement for connecting one or more LNRP's to configure a LocoNet based system for operation. Note that the LNRP's drive the power and Railsync signals on the "standard" LocoNet cable segments, so each LNRP should have a DC input of +14V to +18V at up to 250mA supplied on the side DC power jack.

Note that the shaded cable connections are made from the protected network side connections of the LNRP units to the components that are on the "protected" or high reliability part of the System. The other solid cable connections are the separate "standard" sub-LocoNets that the LNRP connects to the separate "protected" LocoNet.

If a wiring or signal problem occurs on any "standard" LocoNet section that the LNRP is connecting and monitoring, the LNRP will act to internally disconnect the faulty "standard" LocoNet segment so that the "protected" LocoNet can continue operating. If the fault is removed, the LNRP will typically automatically reconnect and resume operations on the "standard" LocoNet segment.

The system Command Station, at a minimum, should be connected to the protected LocoNet cabling. A PC connection may also be connected to the protected LocoNet or can be on a "standard" LocoNet. In particular Throttles and any other devices or wiring that may be connected during operation and cause LccoNet shorts or other problems should always be connected on a "standard" LocoNet.

At power ON the LNRP checks that the attached cables will allow proper data transmission before starting operations. If a fault is detected, the LNRP will flash the LED codes shown in **Table 1**, to allow the type of fault to be diagnosed and corrected.

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2443 Transmitter Rd
Panama City, FL USA 32404
www.digitrax.com
T 850-872-9890
F 850-872-9557
E sales@digitrax.com

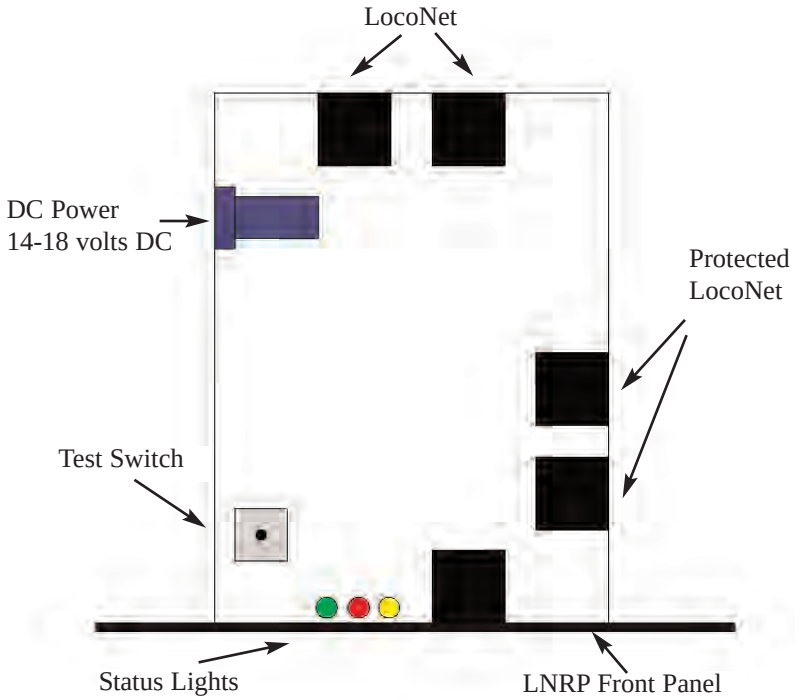
Red LED (Protected LocoNet Side)	
Off	Protected Loconet, Rail Sync OK
One Wink	Protected Loconet Shorted or Stuck Low
Two Winks	No Rail Sync (probably disconnected)
***Three Winks	Large Capacitive Load on Protected LocoNet
***Four Winks	Medium Capacitive Load on LocoNet (16Kbaud only)

YELLOW LED (Standard LocoNet side)	
Off	LocoNet, Rail Sync Ok
One Blink	LocoNet Shorted or stuck low
Two Blinks	Rail Sync Shorted to ground or each other
***Three Blinks	Large Capacitive Load on LocoNet
***Four Blinks	Medium Capacitive Load on LocoNet (16Kbaud only)

Green LED (Power Status)	
Mostly On	DC Power Good, Rail Sync Active
Mostly Off	DC Power Good, Command Station is in Sleep Mode
Fast Blink	DC Power Out of Range (<12V or > 20V)

Table 1

A **Blink** is defined as a light that's mostly off, and then **on** momentarily
A **Wink** is defined as a light that's mostly on, and then **off** momentarily



LNRP LocoNet Repeater Module

Works with all LocoNet systems

Go Beyond DCC With Digitrax Complete Train Control

Main Station

Starter Sets
LocoNet®
Power Supplies

RADIO EQUIPPED Available

Your Digitrax LocoNet® Starter Set is just the beginning of an exciting trip! Pick the one that's right for you!

Super Chief™ · Super Empire Builder™ · Zephyr™

LocoNet® The Digitrax Difference

Locomotive Shops

Mobile Decoders
Function Decoders
SoundFX™ Decoders

More Fun For Everyone

Add More Boosters, Advanced & Simple Throttles, Power Supplies, Universal Panels, IR and/or Radio for more trains and operators.

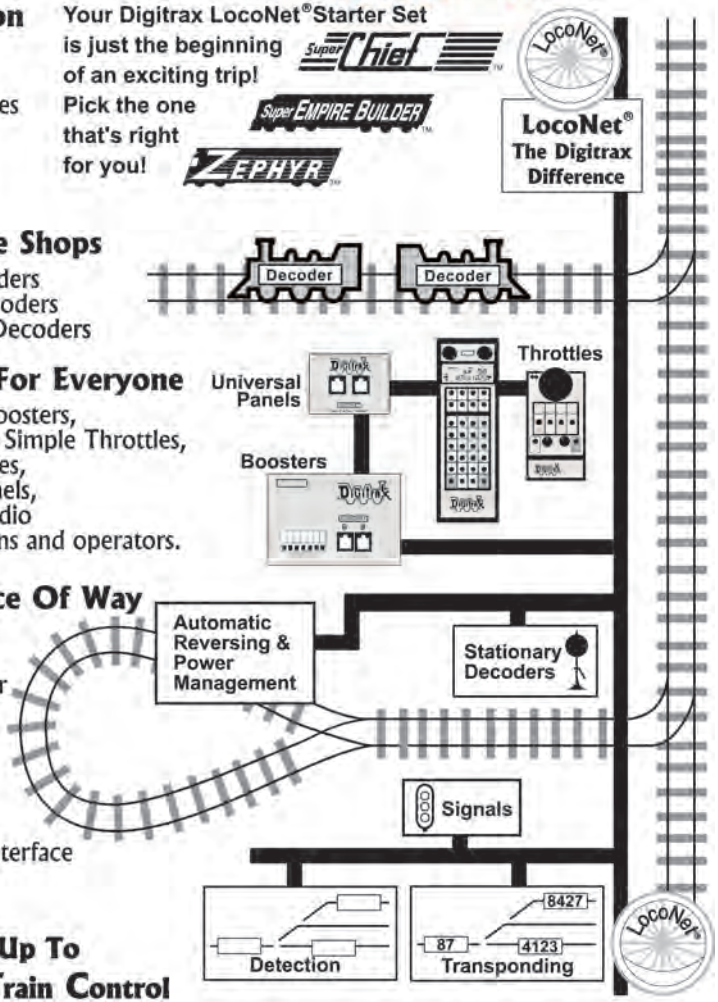
Maintenance Of Way

Make your layout more fun & simpler to operate!

Computer Controls

Computer Interface
Programmer

It All Adds Up To Complete Train Control



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Panama City, FL 32404

www.digitrax.com
T 850-872-9890
F 850-872-9557
E sales@digitrax.com

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