## N3IX Engineering



## **Railsync Power and Termination Board Instructions**

This board can provide Railsync Power, Termination or both to a Loconet. The board has 2 Loconet connectors, one labeled "In" and the other labeled "Out", a connector for an external power supply and three configuration jumpers. These are explained below.



There are 2 **Jumpers** for Railsync Power Routing and 1 **Jumper** for Termination Enable.

**Railsync Power**. Some Loconet devices draw small amounts of power from the Railsync lines. When the number of devices gets large the Railsync load may exceed the capability of the command station. In that case providing additional downstream power can be helpful. In the case of a Standalone Loconet, a source of Railsync Power is required for proper operation.

If additional Railsync Power is desired then the included external 12VDC 500 mA power supply must be connected to the board. If you use your own supply you must ensure that the current rating is **not higher than 500 mA**. This power supply connected to this Board must not be shared with any other devices.

There are two Jumpers to configure Railsync Power to either just the "Out" connector or to both the "In" and "Out" connectors. When the two Jumpers are on the upper positions the "In" and "Out" Railsync lines are directly connected. This configuration is used for a Standalone Loconet and the external 12VDC supply is required. **Do not** use this configuration if Railsync Power is already present at the "In" connecctor.

When the two Jumpers are on the lower positions Railsync Power is fed to the "Out" connector from the external 12VDC supply if present or else from the "In" connector. Use this configuration when just

## N3IX Engineering



adding power to a standard Loconet to support additional devices. Connect the downstream devices to the "Out" connector. Connect the existing Loconet to the "In" connector.

**Termination**. A Loconet-connected Command Station normally provides adequate Termination for most layouts. It may also be helpful in some cases to add Termination if there are communication issues on a normal Loconet with long cable runs and many devices connected. A Standalone Loconet has no command station so a Termination circuit must always be added.

The Terminal circuit uses a small amount of power from the Railsync lines. If there is already Railsync power on the cable plugged into the "In" connector and only additional Termination is desired, then the external power supply is optional.

A Jumper in the upper position enables Termination. If Termination is not required, place the jumper in the lower position.