

The LinkerTM



Now it is easier than ever to remotely control your turnouts and other stationary accessories directly from your AirWire throttle. The Linker scans all AirWire frequencies and combines the received activation commands with DC power and sends the combined signal to the companion Activators using a single pair of wires.

<u>Power for the Linker</u> - The linker can be powered from a DC Power Supply (our DCPS120 works great - \$55) or you may connect it directly to a standard 12 volt battery. Either way, you have plenty of clean, protected and outdoor-safe low voltage power for all of your Activators.

Power Output - The linker combines the received activation commands with DC power sends it all down a pair of wires shared by all Activators. The output amperage is set by the external power source. With a high capacity 12 volt battery or a DC power supply the amperage is limited to about 3.5 Amps. This is more than enough for many Activators driving pulse or solenoid type switch machines.

<u>Peak Voltage Set By Power Supply -</u> The peak voltage available to the Activators is set by the Linker's power supply. Thus a 12 volt battery provides about 12 volts peak to the accessories connected to the Activator. If using our DCPS120 power supply and it is set to 18 volts, the peak voltage becomes 18 volts. If using the higher voltage, take care not to exceed the voltage rating of the accessory. Higher than specified voltages will damage some accessories or shorten their life. For example, if controlling 12 volt light bulbs, don't use an 18 volt power supply. Instead, use a 12 volt supply.

Fully Protected - The linker's DC power input is protected against accidental polarity reversals and the output is protected against short circuits, overheating and overloads. Aloud buzzer along with a FAULT status indicator alert you to some kind of problem.

<u>Status Indicators</u> - There are three status indicators. The PW indicator lights up when power is applied to the Linker. The DCC indicator turns on when valid NMRA-DCC digital signals are received. The FLT indicator lights up, and the buzzer turns on if there is an overload or short circuit on the A or B output terminals.

<u>Plug-in Terminal Blocks</u> - All wire connections to the Linker are through plug-in terminal blocks. These rugged terminal blocks simply installation of the connecting wires. All wires can be connected or disconnected at one time by simply plugging or unplugging. If you use an AC/DC Power Supply, it will plug into the Linker using the standard 2.1mm DC power jack.

<u>User Selectable Scan Rates and Frequencies</u> The standard setup allows the Linker to scan all AirWire frequencies. A front panel control adjusts the rate at which the frequencies are scanned. A slow rate provides a longer time and a bit more range. A faster rate insures that a key press isn't missed when multiple throttles are in use. Also, using the front panel switches, the Linker can be set on a single frequency with the scanning disabled. This is a handy way to allow only a single throttle to control turnouts but block all other throttles from controlling turnouts and accessories.

Excellent Range - The RF receiver features clean reception of weak signals over a long range. It works equally well sitting on the ground or up on a platform. In most cases, higher will be better but don't be afraid to first try it on the ground. You may determine that the range is more than adequate.

Multiple Linkers May Be Used - Large layouts may require multiple Linkers. This is OK since each Linker can be given its own set of Activators. Since each Activator has a unique number, multiple Linkers will not interfere with each other.





The Activator



The Activator provides remote control for all of your switch machines and almost any other type of garden railroad accessory. It can turn on lamps, motors, pumps, blowers and relays. Anything that can be turned on or off, or pulsed on/off can be controlled by the Activator.

Four Independent Outputs - Each Activator has 4 separate and independent outputs. Each output pair is rated at 500mA or ½ amp continuous. This is more than adequate for throwing LGB snap switch machines. For higher current requirements, connect the output to a relay. The mode of the outputs, pulse, continuous or a combination is chosen using the SETUP switches. The output drivers are socketed for easy replacement - just in case.

<u>Simple Group Number Selection -</u> Each Activator is given a unique group number using the rotary switches on the front panel. Group numbers range from 01 to 99. The number may be changed at any time and the change takes effect instantly. No complicated programming is necessary or required. With 4 separate outputs for each group number, your AirWire throttle can control up to 396 separate accessories. If you need more, just call - we can extend the group numbers much higher with a simple chip change.



<u>Simple Setup</u> - The various modes of operation are selected using the front panel setup switches. These 4 switches establish the operation mode and dictate what the Activator Outputs do when the activation command is received. Outputs can be simple On/Off switches for relays or lamps, pulsing for switch machine use or alternating on/off for flashing beacons or grade-crossing flashers.



<u>Local Push-Button Inputs</u> - In addition to being remotely activated, the Local-In jack allows the use of external momentary push buttons to activate the outputs. The Local-In jack is a standard 6 conductor modular telephone jack. Cables and plugs are readily available at most hardware or electronics stores. CVP also supplies almost any length of cable with connectors on one end.

<u>Plug-In Terminal Blocks</u> - All wiring to the Activator's outputs are by way of the 8 position, plug-in terminal block. This provides a quick and convenient way to disconnect the railroad wiring from the Activator.



<u>Absolutely No Confusing Programming</u> - There is no programming or complicated NMRA-DCC setup routines to use the Activator. All controls and setup options are done from the front panel.

Easy To Understand Status Indicators - Two bright LED indicators help monitor the Activator operation. When the Activator input signal is power plus commands, the GP indicator is on solid. If only DC is present without and commands, the GP indicator blinks slowly. The ST indicator flashes anytime the Activator receives a command addressed to one of its outputs. This is a great troubleshooting indicator for your railroad accessory wiring. If the Activator receives a command but the turnout or accessory doesn't activate, you will know to check the wiring or the accessory itself for proper operation.

Three Separate Output Modes - There are 3 basic operation modes: Pulse, Continuous or Combo. Pulse is a short activation of the output from ON then back to OFF. This is typically used for throwing momentary accessories like switch machines. When in the Pulse mode, all 4 outputs behave the same. Continuous means the output is either continuously on or OFF. It doesn't pulse. In this mode, the two outputs are complimentary - i.e. if one is ON, the other is OFF and vis versa. When in the Continuous mode, all 4 outputs behave the same. Combo mode sets two of the outputs to flash alternately like a grade-crossing signal and the other two are set for Continuous. Combo mode allows one Activator to control different types of outputs.

<u>Two Different Pulse and Flash Durations</u> - The PD setup switch selects between a standard ½ second pulse duration or doubles the pulse duration to about 1 second. The FR setup switch selects between a standard 1/4 second per flash rate or double that rate.

<u>With Or Without The Enclosure</u> - The Activator can be ordered with or without the plastic enclosure. The bare board is handy where the Activator is mounted inside a small structure or in a larger enclosure that houses several activators. Either version features the same capabilities. The bare board version uses standard terminal strips permanently mounted to the board.



\$99 Without Enclosure msrp

\$119 With Enclosure msrp

*MSRP - Does Not Include Freight or Taxes