



# AARON HEINE Electronics

## Quick Start Guide: RB-1

Thank you for purchasing this RB-1 Stratolite Circuit Kit by Aaron Heine Electronics. We take pride in the products we create, and hope you enjoy them. Please take some time to read through this instruction manual for warnings, tips and tricks for installation.

The RB-1 is a lighting circuit that emulates a Prime MFG PM-8911 Series Electronic Warning Beacon “Stratolite” that were used by many railroads before the ditch light era. They simulated a mechanical rotation with 4 stationary bulbs that would flash sequentially in a clockwise manner. The RB-1 is designed with the end user in mind to keep the installation simple and fast. It comes fully assembled, and ready to be installed into your locomotive.

### Important!

The RB-1 is designed for DCC (digital) systems **ONLY**, and can take a max voltage input of 14 volts DC. Anything other than these two restrictions will damage the circuit. There are no liabilities for any damages accumulated for improper installation, tampering with the circuit board, or removing the heat shrink. **This will void any returns if the product fails to operate, or damages personal equipment.**

### A) LED Cluster Installation

The LED cluster is made to fit into a HO scale Details West “RB-106” rotary beacon. The LED will fit into a cored/drilled out globe that fits a 1.5V “grain of rice bulb”. If the rotary beacon does not have a hole, drill a #53 hole into the center of the globe, so that the LED cluster will fit inside. For locomotives that already have a beacon installed, remove the old bulb/LED and install the LED cluster into the globe. Be sure to leave about ¼ of an inch of lead wire below the LED cluster, so you do not damage the connection to the LEDs. Tuck the rest of the other wires out of the way with electrical tape, etc. to finish this installation step.

### B) Electrical Connection

The RB-1 requires a minimum of 9 volts DC for operation, so connect it to the 12-volt common wire on the decoder. If your decoder has limiting resistors or diodes for LEDs/incandescent bulbs, bypass them to ensure the RB-1 receives the proper voltage.

The RB-1 features two black wires for connection, with no need to worry about polarity. Simply connect one wire to the common, and the other to the function or AUX wire/pad.

You have two main options for connections:

**Option 1:** Solder one black wire to the blue common (+) wire of the decoder's pigtail, and the other to your chosen AUX function (-) wire (e.g., green or violet).

**Option 2:** Solder one black wire to the common (+) solder pad on the decoder or daughter board, and the other to your selected AUX function (-) solder pad (e.g., AUX 1 or AUX 2).

Make sure to cover all soldered connections with heat shrink to prevent electrical shorts. After soldering, test the RB-1 to ensure you can toggle the beacon on and off by programming the decoder's function output to 'ON/OFF.' Avoid programming the output to 'Beacon' or 'Stratolite,' as they can cause erratic operation.

### Troubleshooting

After installation, if the RB-1 does not turn on, please read through part A and B of the installation process. Re-check all of the wiring connections and make sure they are connected properly and fully isolated, to prevent electrical shorts. If that does not work, test the RB-1 with a 9-volt battery by taking either of the black wires and connecting them to the battery terminals to complete the circuit. If the RB-1 still does not operate during this test, please contact us so we can further assist you.

**Need further assistance, or have any questions or comments?**

Please contact us at:

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