JACKSON RAILCAR | RAILNET

ENVIRONMENTAL LIGHTING CONTROLLER

QUICK START GUIDE | 48 LIGHTING CHANNELS - 8 BANKS - 6 CHANNELS PER BANK

Wi-Fi Password
railnet1

Open in Your Browser
192.168.4.1

GETTING STARTED

1. Connect a Breakout Board

Connect an ELC Breakout Board to one of the 8 banks on the ELC using a CAT6 cable. Each breakout board provides connections for 6 LED channels.

Daisy-Chaining Breakout Boards: Breakout boards can be daisy-chained when you want multiple groups of lights to operate together. Any breakout board connected downstream will mirror the breakout board before it. Corresponding outputs on every board in the chain respond together with the same lighting behavior and settings.

IMPORTANT: Daisy-chaining does NOT add channels or increase the electrical capacity of the ELC. All boards in the chain share the same limits of the original bank. The combined load of every breakout board in the chain counts toward the same 20mA maximum per output, 120mA maximum per bank, and 960mA maximum total LED output across the ELC.

2. Connect Your Lights

Connect LEDs to the desired outputs on the breakout board. The ELC works with standard LEDs; observe correct LED polarity.

Before installing lights on your layout, you can plug the included ELC LED Test Board into a bank in place of a breakout board. The Test Board has LEDs already installed, allowing you to see how brightness settings, sequences, and lighting effects will look while the ELC is still on your workbench. Once you are comfortable with the setup, disconnect the Test Board and connect the breakout board for that bank.

3. Connect Power

Connect the included 12V 2A power supply. The ELC will start automatically and create its own RailNet Wi-Fi network.

4. Connect to RailNet

Open Wi-Fi settings on your phone, tablet, or computer and select the RailNet Wi-Fi network. Enter the password railnet1. Once connected, open a web browser and go to 192.168.4.1.

IMPORTANT: CAT6 is used only to connect the ELC to its breakout boards. These ports are NOT Ethernet. Do not connect them to a network switch, router, computer Ethernet port, or other network equipment.

NO INTERNET MESSAGE: Your device may report that the RailNet Wi-Fi network has no Internet connection. This is normal. Stay connected to RailNet and open 192.168.4.1.

USING YOUR ELC

The ELC provides 48 lighting channels divided into 8 banks of 6 channels each. Select a bank in the RailNet interface to configure its lighting. Depending on the selected mode, you can create steady illumination, flashing, alternating lights, sequences, chases, randomized lighting, lightning, traffic-light behavior, and other lighting effects.

Brightness: Brightness is adjusted by bank. All six channels within a bank share the same overall brightness setting. Group lights with similar brightness requirements together when possible.

ELECTRICAL LIMITS

Input Power: 9-24V DC
Maximum Per Output: 20mA
Maximum Per Bank: 120mA
Maximum Total LED Output: 960mA
Do not exceed these limits.

QUICK TROUBLESHOOTING

RailNet Wi-Fi doesn't appear: Confirm the ELC is powered and allow it a moment to start.
Browser won't open: Verify you are still connected to RailNet, then enter 192.168.4.1.
LED doesn't light: Check polarity, wiring, CAT6 connection, selected channel, and bank settings.
One light needs different brightness: Brightness is controlled by bank; move it to another bank when possible.

PRO KIT CONTENTS

(1) ELC | (8) ELC Breakout Boards | (1) ELC LED Test Board | (4) CAT6 Cables | (1) JRCLED1001 0402 Cool White 10-Pack | (1) JRCLED1000 0402 Warm White 10-Pack | (1) 12V 2A Power Supply

Plug In. Set Your Lights. Bring Your Layout to Life.

JACKSON RAILCAR | RAILNET | Because Details Matter.