ECO Lines™ F80/F150 RGY Color Controls Guide

This is a supplemental user manual for F-Series Line Projectors that have color switching.

Description

The projectors can switch the line colors between red, green, and yellow. Additionally, there are flashing and alternating sequences. Once set, they remain in memory, even after loss of power.

Line colors and sequences can be manually set, switched by an external contact or sensor or can automatically be selected via a 0–10V control signal.

Each projector incorporates a controller. It has two buttons: **M (mode)** and **S (speed).**

Mode allows for selection of presets in static and switch contact modes, and speed sets the frequency of the flashing and alternating color patterns.

It has two inputs:

- **Input 1: switch contact**
- **Input 2: variable 0–10V voltage**.

⚠ WARNING: Applying voltage to the switch contact input will damage the control module. Only the 0–10VDC input is configured for variable voltage.

Static Color Mode (Mode 1)

The static mode defines the color or sequence that appears when the projector is powered on.

Set the Static Mode by repeatedly pressing the **Mode Button** until the desired color or sequence is reached, it will remain in memory. If no further automation is desired, configuration is done.

Switch Mode: After selecting the Static Mode (Mode 1), select **Mode 2** by holding the **Speed button** and cycling with the **Mode button**.

Automation Modes

Control modules, such as motion and light sensors, enable the automation of color-changing behavior. For instance, the relay output of a motion detector can switch a line from green to red as a vehicle approaches. Such sensors are wired to the **Switch input (Input 1)**:

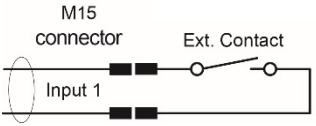
Switch Input 1
Depending on the sensor state, there are two modes:

- Switch **open: Mode 1**
- Switch **closed: Mode 2**

Variable voltage Input 2 enables the projector to change between color presets based on the input voltage connected to **Input 2.**

If Input 1 and Input 2 are connected, the 0-10V signal on Input 2 overrides the Switch Input 1

Switch Input 1



Variable Voltage Input 2

Input 1 – Switch	**Input 2 – Variable voltage**
Mode 1: open contact	Off: 0–1V
Mode 2: closed contact (dead short)	Green: 1–2V
Cycle mode 1 color: single press M button	Red: 2–3V
Cycle mode 2 color: single press M button while holding S button	Yellow: 3–4V
	Green Flashing: 4–5V
	Red Flashing: 5–6V
	Yellow Flashing: 6–7V
	Red/Green Alternating: 7–8V
	Green/Yellow Alternating: 8–9V
	Red/Yellow Alternating: 9–10V

Start: Off
1: Green
2: Red
3: Yellow
4: Green Flashing
5: Red Flashing
6: Yellow Flashing
7: Red/Green Alternating
8: Green/Yellow Alternating
9: Red/Yellow Alternating
↻ *Order repeats*

See following flowchart for additional details on controller

Controller Logic Flowchart

Comments:

1. Set the static & open switch mode profile
2. Set the closed switch mode profile
3. Set the speed of flashing and alternating patterns
4. Check for variable voltage signal first and set corresponding profile
5. If there is no 0-10V signal, check for dry contact on switch input
6. If there is no contact, use static profile as configured