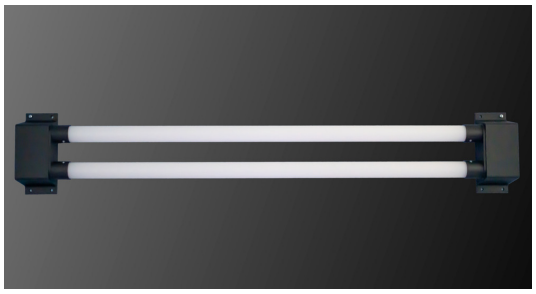


Overview

The Pro Flicker Fluoresce 2.0 is an LED simulated fluorescent light fixture which can operate and display a wide array of realistic defect and flicker effects. Dual layer technology allows effects to be programmed individually in each "fluorescent tube" as well as on the frontend affecting the operation of both "fluorescent tubes" simultaneously. A trigger input allows remote operation of the light fixture with an external programmable prop controller or other programmable logic controller (PLC). The external trigger input can also be used to externally modulate the flickering pattern of the light fixture to create your own custom effects.

The frontend flicker control consists of nine (9) total modes of operation including various brightness levels, and extended ON and OFF flicker modes. The frontend can also be externally triggered as previously mentioned. Each individual tube has its own flicker control with a total of twenty (20) modes of operation which include varying brightness levels, electrical flickers, drop-outs, surges, and other effects. Varying all three flicker controls can provide nearly an infinite array of different effects within a single light fixture.

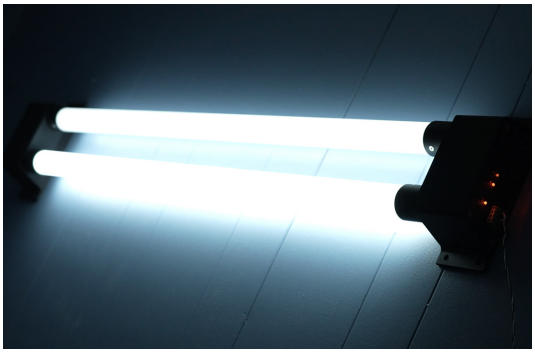
Three (3) pushbuttons allow the user to cycle through the various modes available while LEDs provide visual feedback of the output for each flicker channel. Internal memory allows the device to resume the previously selected output mode in the event power is loss to the device which is useful for permanent installations where a single operating mode is required continuously even when power is lost or cycled.

Features

- Nine (9) modes of frontend flicker control
- Twenty (20) modes for each individual tube
- True non-repeating random algorithms
- White LEDs – Other colors available on request
- Three (3) pushbuttons for mode control
- Three (3) LEDs for visual display of output
- External trigger control
- Internal DIP switches can disable LEDs
- Memory saves mode during power loss
- Operating Voltage: 12VDC Nominal
- Max. Load Current: 700mA Max
- Total length: 46"
- Flange mount for easy mounting

Operation

Using the Fluoresce 2.0 is extremely simple. Simply connect the output terminals to a 12VDC source such as a plug-in power adapter, and use the pushbuttons to set the modes for the unit. The connection diagrams on page 3 illustrate how to connect the unit as well as connect an external trigger input.



Front End Flicker Modulation

The frontend flicker control provides nine (9) modes of flicker effects which affect both tubes of the light fixture simultaneously. These flicker effects can be used in combination with the individual tube flicker modes to create a nearly infinite number of flicker effects. Each press of the pushbutton will advance the frontend operational mode by one.

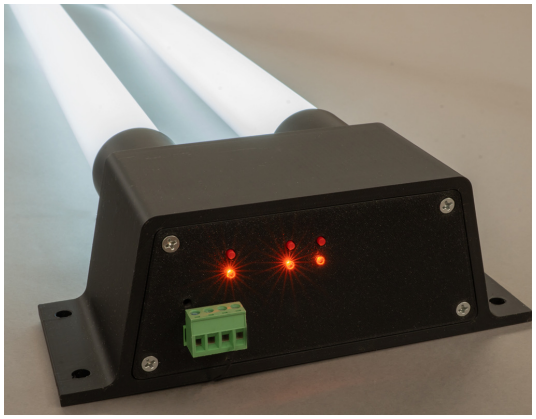
Mode	Front End Flicker Modes	Brightness
1	OFF	OFF
2	Steady output - 100% Brightness	100%
3	Steady output - 75% Brightness	75%
4	Steady output - 50% Brightness	50%
5	Steady output - 25% Brightness	25%
6	Extended OFF / Flicker ON	100%
7	Extended OFF x 2 / Flicker ON	100%
8	Extended ON / Flicker OFF	100%
9	Extended ON x 2 / Flicker OFF	100%

To create fluorescent wave defects where oscillating waves of light are visible in the tubes, try setting the brightness to either 25% or 50% brightness. This works even better if the brightness levels using individual tube flicker control is set to dim levels.

Individual Tube Flicker Modulation

Each individual tube has its own dedicated flicker control and a pushbutton to cycle through the twenty (20) available modes. The easiest way to choose and select one of these modes is to ensure that the frontend flicker control is set to 100% (steady-on) operation, so that you can properly evaluate the function of the individual tube without having any frontend control effects mixing with the individual tube flicker modes. Each press of the pushbutton will advanced the individual tube operational mode by one.

Mode	Description	Brightness
1	Output OFF	OFF
2	Steady output – Brightness 100%	100%
3	Steady output – Brightness 75%	75%
4	Steady output – Brightness 50%	50%
5	Steady output – Brightness 25%	25%
6	Steady output – Brightness 10%	10%
7	Extended OFF / Flicker ON	100%
8	Extended OFF x 2 / Flicker ON	100%
9	Extended ON / Flicker OFF	100%
10	Extended ON x 2 / Flicker OFF	100%
11	ON / Multiple Flicker Defects OFF	100%
12	100% ON / Starter Defects	100%
13	100% ON / Starter Defects (fast)	100%
14	Extended OFF / Slower Defects	100%
15	50% Dim / Multiple Starter Defects	50%
16	Extended ON / Multiple OFF	100%
17	Extended ON x 2 / Multiple OFF	100%
18	50% Dim / Extend ON / Mutiple OFF	50%
19	Surge, 50% Dim, Multiple to 100%	50%
20	Surge, 25% Dim, Multiple to 100%	25%



Flicker Output Status LEDs

There are three (3) orange LEDs located on the control panel which provide output feedback for the frontend and two (2) individual tube flicker controls. These LEDs are bright and for installations in dark environments, can be disabled by using the internal DIP switches.

External Trigger Control

An external trigger input is available if remote control of the light fixture is required. This is useful if the scene is being controlled by a master prop controller. The external trigger can provide either extended ON or OFF operation – for example, turning on the light fixture for the duration a scene when being run by an external prop controller, or the entire light fixture can be modulated externally if you want to add your own pattern of flicker. The external trigger is an optocoupler input and requires 12V to turn ON. Connect a switchable 12V source to TRIG+ and the return or GND connection of that 12V source to TRIG-. See the wiring diagram on the next page for connection details.

Trigger Input	Trigger Operation
TRIG = 12V	Trigger is ENABLED Light will turn ON
TRIG = 0V (OPEN)	Trigger is DISABLED Light will turn OFF

When the trigger is ENABLED and the light fixture is ON, both the frontend and individual tube modulation will work as programmed. The trigger input can simply be treated as an external ON / OFF switch.

Internal DIP Switches

The internal DIP switches provide additional customization to the light fixture. Using the DIP switches, you can enable and disable all three (3) LEDs or the external trigger. To access the DIP switches, please remove the four (4) screws on the control panel and remove the cover plate. The ON position of the DIP switch is the position closest to the pushbuttons.

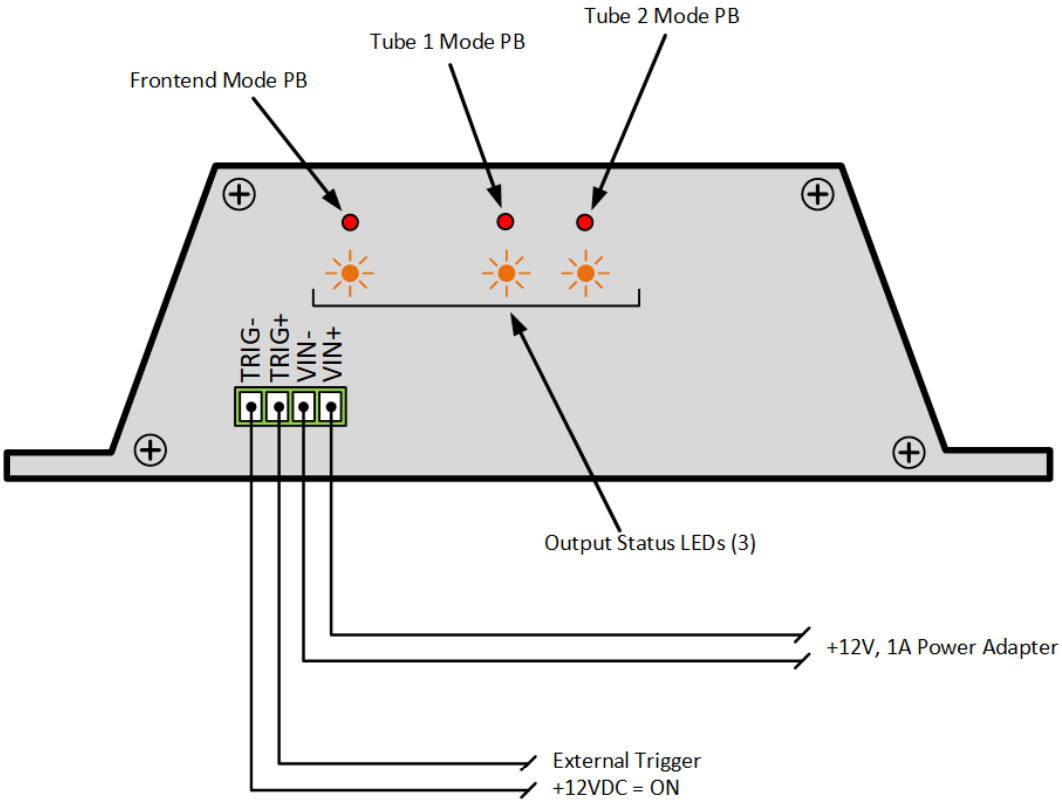
DIPSWITCH	Description
SW1 - RIG	ON = Trigger DISABLED OFF = Trigger ENABLED
SW2 - LED 1	ON = Front End Output LED ENABLED
SW3 - LED 2	ON = Tube 1 Output LED ENABLED
SW4 - LED 3	ON = Tube 2 Output LED ENABLED

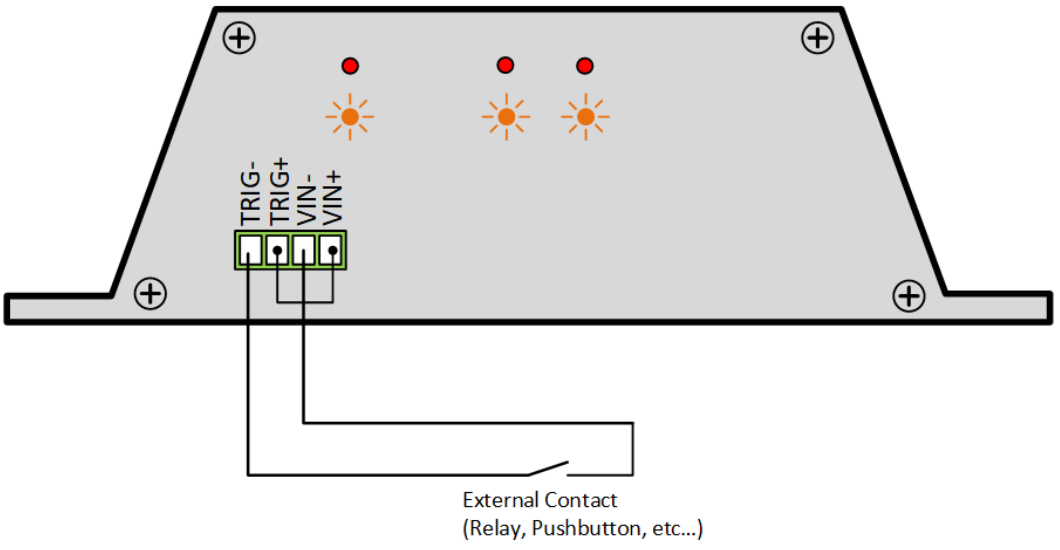
Input Power Source

We recommend a 12VDC input power source, such as a 12VDC plug-in adapter, or other power supply with a minimum output current of 1A.

Connection Diagrams

The next page shows two connection diagrams for the Fluoresce 2.0 light fixture. The first shows general connections to a 12VDC power source and connection of a 12V trigger. The second figure shows how to utilize the light fixture's own 12VDC to connect a contact switch such as a relay's normally open (NO) contact, pushbutton, etc… to use as an external trigger input to the light fixture.


Tube 2 Mode PB
Tube 1 Mode PB
Frontend Mode PB
TRIG-
TRIG+
VIN-
VIN+
Output Status LEDs (3)
+12V, 1A Power Adapter
External Trigger
+12VDC = ON


TRIG-
TRIG+
VIN-
VIN+
External Contact
(Relay, Pushbutton, etc...)