

B1010 Analog LC Controller

User Manual

Thank you for purchasing a Meadowlark Optics B1010 Analog LC Controller. This device provides a simple and portable solution for driving nematic LC devices.

Power

The Analog LC Controller is capable of operating on 9-12VDC, from either a 12V power supply or a 9V battery (for short durations). A compatible 12V supply is included, but if you wish to use a 3rd party power supply, please ensure that the barrel connector is center positive, and that it is capable of providing at least 200mA.

A 12V power supply should be used whenever possible. The battery is not intended as a primary power source, but as a convenience. Battery life is limited, and performance will degrade once the battery status LED has turned fully red. Replace the battery quickly once this has occurred, as the output will begin to go out of spec and the LC device performance will degrade as the battery drains further.

NOTES: If the unit is connected to a 12V power supply AND a 9V battery, the battery indicator will be green regardless of the actual battery voltage. Operating in this configuration draws a small amount of current from the battery, so it is recommended that the battery be disconnected if the unit is to be left on for more than a few hours. Furthermore, the power supply should be disconnected from the controller if a battery is installed, but the power supply is disconnected from line voltage. The battery can slowly discharge through the power supply, which does not cause damage, but may deplete the battery unexpectedly.

Operation

NOTE: This controller is capable of 20VAC RMS output. If your LC device is sensitive to such voltage, ensure that both knobs are fully rotated counter-clockwise before powering on the unit.

Once your LC device is connected to the output SMA connector, power the unit on using the rocker switch. You can set and effectively store two voltage levels by rotating each of the two knobs. The silver toggle switch selects which voltage level is currently being output to the LC device, and the black button switches to the other voltage level when depressed (regardless of switch position).

The banana jacks between the knobs allow for continuous voltage monitoring without interfering with the LC device connection. If using an adapter such as a dual-banana to BNC, ensure that correct polarity is observed.