



Optical Finesse LCC2-12

Portable Liquid-Crystal Controller



The **LCC2-12** is a low-cost, dual-channel liquid-crystal controller, designed to run continuously-variable LC devices such as variable retarders, polarization switches, shutters, attenuators, and tunable color filters.

LC voltages up to 12 V_{RMS} are controlled by two amplitude knobs. The rugged output stages of the LCC2-12 can drive cells up to 600 nF capacitance, and will withstand continuous shorts while recovering automatically when the short is removed. The lightweight, compact size of the **LCC2-12** makes it suitable for either hand-held or benchtop use.

Custom product configurations are available. The **LCC2-12** may be configured as an application-specific function generator with two field-adjustable parameters set by its knobs. OEM inquiries welcome.



Features

- 2 kHz DC-balanced AC waveform generation up to 12 V_{RMS}
- Two independent channels, two 10-turn knobs for amplitude control
- Ability to drive large-area cells up to 600 nF of capacitance
- Lightweight, ultra-compact size
- BNC or mini-DIN6 LC output connectors standard
- Operates on either 9V battery or AC wall adapter
- Automatic full-recovery short-circuit protection on LC outputs
- RoHS compliant

www.opticalfinesse.com

LC OUTPUT & INTERFACE

Number of channels	• Two, independent
Output waveform	• Bipolar DC-balanced square wave
Carrier frequency	• 2.00 ± 0.01 kHz
Amplitude range	• 0.0 to 12.0 V _{RMS} guaranteed • Custom configurations available
Amplitude control	• Two 10-turn amplitude knobs, one for each channel
Residual DC	• < 3 mV at any amplitude level
Output resolution	• 12 mV discrete settability
Drive capability	• Outputs can drive cells up to 600 nF capacitance
Short circuit	• Full-recovery short-circuit protection on LC outputs • "Fault" LED will illuminate when an output is shorted

PHYSICAL

Dimensions	• 5.8 in L x 3.5 in W x 1.0 in H
Weight	• 0.7 lbs (controller + power supply)
Chassis material	• Blue translucent ABS plastic, white silkscreened nomenclature, rubberized side handgrips
Chassis features	• Internal "Power", "Batt Low", and "Fault" LEDs • 2.1 mm power jack receptacle • Separate battery compartment
LC output connectors	• 50-ohm BNC female bulkheads or mini-DIN6 receptacle (specify)
RoHS compliance	• 100% compliant
CE compliance	• Certification to FCC Class A emissions level upon special arrangement
Operating temperature	• 5 to 45° C
Power supply	• Internal 9V battery or AC wall adapter (separate, supplied with controller) • AC wall adapter: international 9V, 6W, 100-240VAC 50-60Hz input, UL/CE listed, 2.1 x 5.5 mm center-positive plug • Battery automatically disconnected when AC wall adapter in use
Battery Life	• 3 hours typical of continuous use with new 9V alkaline battery (both channels set to midrange; battery life will vary depending on use and LC load)
Warranty	• One year

In keeping with our commitment to continuous product improvement, these specifications are subject to change without notice.



3133 Indian Road
(303) 442-1549

Boulder CO 80301
info@opticalfinesse.com



REV 052711