

## **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<sub>RMS</sub> 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 handheld 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  $V_{\text{RMS}}$
- 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

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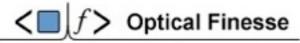
LC OUTPUT & INTERFACE	
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Number of channels	Two, independent
Output waveform	Bipolar DC-balanced square wave
Carrier frequency	• 2.00 ± 0.01 kHz
	<ul> <li>0.0 to 12.0 V<sub>RMS</sub> guaranteed</li> <li>Custom configurations available</li> </ul>
Amplitude 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
	<ul> <li>Full-recovery short-circuit protection on LC outputs</li> <li>"Fault" LED will illuminate when an output is shorted</li> </ul>

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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
	<ul> <li>Internal "Power", "Batt Low", and "Fault" LEDs</li> <li>2.1 mm power jack receptacle</li> <li>Separate battery compartment</li> </ul>
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
	<ul> <li>Internal 9V battery or AC wall adapter (separate, supplied with controller)</li> <li>AC wall adapter: international 9V, 6W, 100-240VAC 50-60Hz input, UL/CE listed, 2.1 x 5.5 mm center positive plug</li> <li>Battery automatically disconnected when AC wall adapter in use</li> </ul>
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.



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