

LF-3

Low Frequency Filter

Basic Description

The LF-3 Low-Frequency filter, when used with the XC-3 two-way crossover, provides the low-frequency crossover to create a three-way active system. The unit mounts to the rear panel of a two-channel DCA or CX amplifiers to save cost and rack space. The output signal and the operating power for the unit are conducted through the amplifier's DataPort, eliminating added external wiring or power transformers.

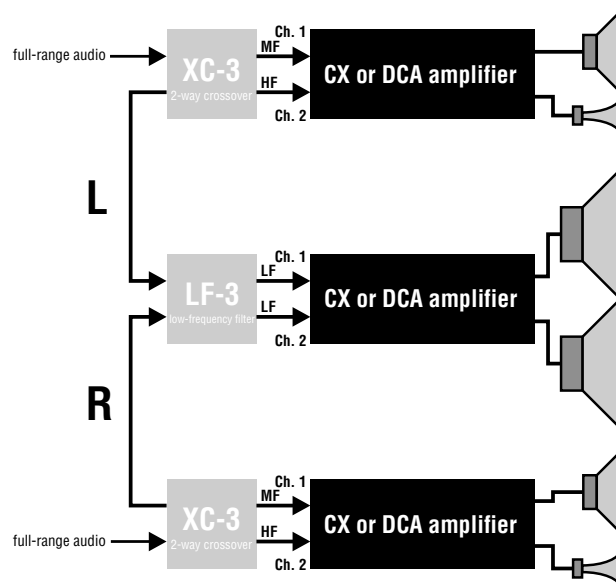
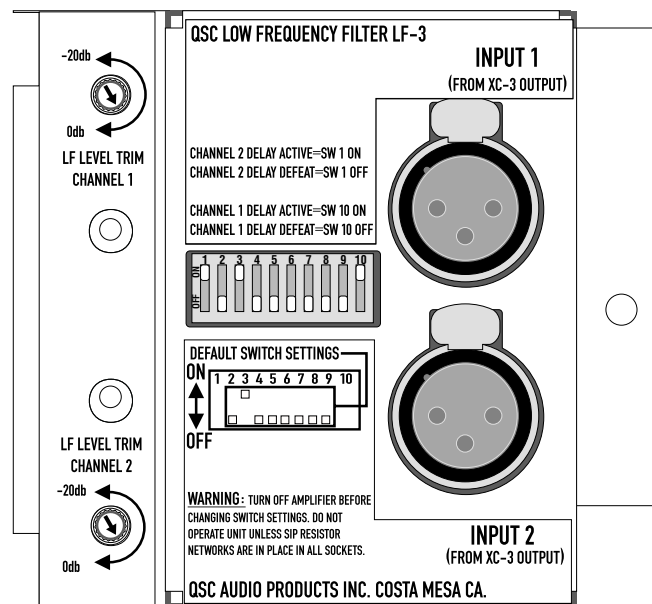
The LF-3 features two discrete channels with 4th-order Linkwitz-Riley low-pass filters with 24 dB/octave slopes. Each channel has an all-pass filter providing delay for time alignment of low-frequency drivers with mid- or high-frequency drivers, as well as a trim control providing 0 to 20 dB of attenuation for matching levels among the various frequency bands. Frequency and delay parameters for both channels are set individually. One LF-3 mounted on an amplifier will support two other amplifiers with XC-3 accessories installed, even in stereo.

Compatible Amplifier Models

DCA 1222, DCA 1622, DCA 2422, DCA 3022, and DCA 3422
CX 302, CX 502, CX 702, CX 902, CX 1102, CX 302V, CX 602V, and CX 1202V

LF-3 Features

- Compatible with 2-channel DCA series or CX series amps
- Designed for tri-amp cinema or installed sound systems
- Adds crossover and time alignment functions without requiring additional rack space, cabling, or AC outlets
- Selectable low-pass frequencies from 80 to 500 Hz
- Selectable time-alignment delays from 0.3 to 1.8 millisecond
- Mounts directly to back of amplifier via DataPort interface
- Precision components for accurate performance
- Active balanced XLR inputs



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LF-3 SPECIFICATIONS	LF-3
CONTROLS (each channel)	
Low-pass frequency	Selectable using SIP resistor networks: 80, 150, 200, 250, 300, 400 & 500 Hz
Time alignment (all-pass) delay	Selectable using SIP resistor networks: 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 1.0, 1.3, 1.4 & 1.8 milliseconds
Low frequency delay	Bypass or engage using DIP switch
Gain adjustment	Trim potentiometer 0–20 dB attenuation
CONNECTORS	
Input	Female 3-pin XLR, one per channel
Output to amplifier	Male HD-15 connector to amplifier DataPort
Accessory's operating power	Male HD-15 connector to amplifier DataPort
GENERAL AUDIO	
Input stage type	Electronically balanced differential
Output stage type	3Balanced
Dynamic range	118 dB nominal
Total harmonic distortion	Less than 0.1%
Signal to noise ratio	Min. 103 dB
Low-pass filter type	4th-order Linkwitz-Riley alignment; -6 dB at crossover frequency
Low-pass roll-off type	24 dB/octave rolloff
GENERAL INFORMATION	
Supply Voltage (no load)	+15 volts provided by amplifier, -15 volts provided by internal charge-pump converter.
Supply Current Requirements	Less than 50 mA
Operating Temperature	0–70° C
Input type, each channel	Electronically balanced differential
Input impedance	22.6 k Ω balanced; 11.3 k Ω unbalanced

