



FAIRLIGHT

An introduction to

EVO



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Overview

EVO is a fully self-contained audio production system for video, film and music, offering high track count with Fairlight's dedicated FPGA-based hardware for mixing and processing, built-in video, and seamless workflows for virtually all SD and HD file formats.

The console is aimed at achieving industry leadership in price/performance for a platform integrating recording, editing, mixing and video.

EVO is file compatible and operationally similar to existing Fairlight products. It is firmly a part of the Fairlight product family, which spans the range from home operations, to transfer rooms, to ADR rooms, through layers of preparation, to the final dub stage.

What's new in EVO?

As a mixing surface EVO excels with its mid-range price point with in-line controls and detailed full-color displays for every fader. The center section is designed around Fairlight's revolutionary self-labeling Xynergi keys, for full tactile control of recording, editing and mixing. EVO's built-in professional monitoring section makes simple sense out of complex surround mixing, capable of fully automated mixes in multiple formats simultaneously. And with 36-bit floating point audio throughout the signal path, you'll have the headroom and precision for the most demanding applications.

Highlights:

- New surface technology - integrated Xynergi center section with the self labelling key switches and the 'feel' of a Large format mixing console.
- New Touch screen 'bridge' delivering rich graphics and channel feedback.
- Innovative use of color OLED screens (organic LEDs) in the new fader panels to display enhanced automation feedback and improve the mixing process.
- New In-Line Panel (ILP) delivering efficient knob-per-function access to channel parameters. The 'feel' of a large format mixing console.



Master Control Panel (MCP)

The Master Control Panel works like a Xynergi controller. Its innovative use of self-labelling keys allows quick task switching between editing, recording, mixing, monitoring and setup operations.

All QWERTY functions are handled on the same keys, popping up automatically whenever a naming operation is initiated.

A group of fixed function keys guarantees access to vital functions such as:

- Transport keys, including a Jog Wheel, locators, jump keys and transport “smarts”.
- Monitor volume and mute for Control Room and Studio · Numeric Keypad for location, timecode entry and other numeric functions.
- Dedicated Undo and Redo buttons

The Master Control panel forms the heart of the system, where all functions are accessible, some a layer or so deep. The remaining system panels allow instant surface access to your choice of mixing controls and displays.



Fader Panel II with OLED (FP)

Fader Panel II is Fairlight's new, powerful fader bank, redesigned to provide more local control for a traditional mixing approach. Incorporating 12 motorized faders and 12 assignable rotary controls, the panel can easily be switched to control any group of channels on the console. A new generation full color OLED has been specified for FP II. Its large size and strong graphic capability provides excellent channel feedback such as channel name, VCA grouping, system credentials, fader value, integrated channel meters as well as automation status information such as real-time touch, touch status (on/off), automation status (read, write, trim, preview). Its ultra wide viewing angle allows channel details to be seen from any position. EVO automatically manages the information shown on the screens to produce low fatigue and quicker recognition of important information.



In Line Panel II (ILP) and In Line Screen Panel (ISP)



The In Line Panel design is the key to large scale mixing control. The In Line Panel works with a Fader Panel immediately below it. Each of the 12 positions links four touch-sensitive rotary knobs and switches to the channel below. Immediately above the ILP is an in line screen panel (ISP) providing an embedded touch screen, which gives feedback on the function of the rotary knobs and switches. The screen is positioned so that the graphic representation is directly above the physical knobs and switches. The ILP can operate in a number of different modes depending on the level of channel parameter control required at any one time.

Upper Center Panel (UCP)

The Upper Center Section complements the Xynergi Center Section, providing additional means of control and display.

The panel comprises an embedded 20" inch touch screen, which aligns with the screens on the ILP panels, and space for three sub-panels at the foot of the screen. There are a number of sub panel options that can be specified including a joystick panner, mouse pad and master control panel for film style PEC direct switching. This screen is intended for track playback software, but can also be fitted with an integrated video switcher, allowing any desired screen information to be displayed.



Dynamic Resolution Optimization (DRO)

As always, new technologies present new opportunities. Fairlight has used the programming flexibility of CC-1's FPGA chip to run different processes at different bit depths. This is called Dynamic Resolution Optimization (DRO). Older DSP-based systems perform all processes end to end at a single resolution even if some processes will sound better with more resolution, whilst others require less. In Fairlight's Crystal Core system, each process is tailored exactly to its needs. With DRO, some aspects of EQ processing are performed at 72-bit floating point precision, creating the headroom needed for digital sound to finally achieve the quality missed from analogue days. Mixing is performed with 36-bit floating point precision, delivering a better audio quality than any other system currently in the market. At the same time, metering functions warrant only 16-bit fixed point resolution, leaving more processing power available for other channels to use. Dynamic Resolution Optimisation (DRO) allows Fairlight engineers to choose the best processing for each system task. This not only ensures unsurpassed audio quality, but exponentially increases efficiency, providing greater performance at a lower cost.

Crystal Core FPGA Key Features

- Over 200 channels, each with full EQ and Dynamics
- Automation of over 60,000 parameters including PlugIns
- Less than 0.5mS latency with full processing
- Lightning fast tactile response
- Integrated 192 track disk recorder/editor
- Integrated HD and SD video track with editing capabilities
- Wide choice of I/Os in analogue, digital and MADI
- Integrated VST and Rewire support
- Comprehensive Multi-format mixing capabilities
- Comprehensive integrated monitoring matrix
- Full support for collaborative workflow tools

Crystal Core CC-1 FPGA

