

Lavry Quintessence features for music production studios

The Quintessence DA converters are made for music production (tracking, mixing, mastering). The unit offers features for easy work-flow. Operation is easy to learn, simple to execute, and quick to respond.

Listening to music during the production stage is often done by comparing a reference to a processed file.

Connect the reference to Input 1 and the processed music to Input 2 (or 3). When played simultaneously (such as from a DAW), switching between the inputs offers a quick transition for ideal listening comparison.

Abrupt switching between channels can cause loud clicks, even known to destroy tweeters, so the Quintessence has a built-in click protection.

The Quintessence has a Main output (L and R) for music production, AES/EBU output levels, and a Monitor output (L and R). The Monitor output offers the same music as the Main output but with a level attenuation suitable for power amplifiers or for all others gear needing lower levels.

Proper listening comparison between A and B requires matching their loudness levels. Each Quintessence input

has an independently adjustable Monitor output level (0.25dB resolution).

The Quintessence offers advantage over conventional hardware attenuators (potentiometers and sliders). It also overcomes problems associated with digital attenuation (such as DAW software). A large knob and a clear display provide the advantage of digital control but the attenuation is done by analog circuits.

Analog audio potentiometers and sliders are “special”. They attempt to follow the ear sensitivity to loudness, near a logarithmic curve. Setting precise levels is difficult and imprecise to manufacture due to the huge dynamic range of the ear.

Digital attenuation causes quantization: each 6dB of digital attenuation results in a loss of one bit of accuracy. The problem is very significant for a 16-bit source. Attenuating digitally by 24dB leaves only 12-bit audio, thus higher THD+N. Adding dither helps, but it increases the noise further.

All the Quintessence settings are stored in memory. The easy-to-set Monitor outputs are quantization free (this enables listening to unattenuated digital audio without loss of bits).

Although the Quintessence can be used for critical listening in a Hi-Fi setup, the unit offers features for audio production. Mono mode for stereo field reference, Invert for correcting wiring or other polarity error, and Cal mode for fine level calibration (0.1dB resolution).