

Lexicon MPX110 Effects Processor



The newest addition to Lexicon's award-winning MPX Series, the MPX 110 replaces the MPX 100 as Lexicon's most affordable dual-channel processor. A true stereo processor, the MPX 110 includes 24-bit analog-to-digital and digital-to-analog conversion, and relies on the proprietary Lexichip engine to perform 24-bit internal processing. Its 240 carefully-crafted presets feature legendary Lexicon reverb, as well as dual programs that combine two independent effects in four routing configurations. Tempo can be set using audio input, a dual footswitch, the front panel Tap button, or an external MIDI device. A powerful editing tool called Learn Mode allows patching of five front panel controls, while permanent MIDI patches provide access to audio parameters not available from the front panel.

Standard Features

- . Legendary Lexicon reverb
- . Lexicon's proprietary Lexichip
- . 24-bit internal processing
- . 24-bit analog-to-digital and digital-to-analog conversion
- . 240 presets
- . 16 User programs
- . 44.1kHz S/PDIF output (may be set to wet or dry for use as a high-quality, stand-alone converter)
- . Simultaneous analog and digital outputs
- . Independent processing of each input
- . Dual programs that combine two independent effects in four routing configurations
- . Multiple delay, modulation, and pitch effects

- . Tap Tempo
- . Full MIDI control
- . Software-selectable MIDI Out/Thru connector
- . Two-stage headroom indicators
- . Global Mix and Tempo Modes
- . Headphone output
- . High impedance inputs for instruments
- . Push-button or footswitch selection of dry or muted audio output
- . 20Hz-20kHz±1dB frequency response

Tap Tempo

Tap Tempo simplifies the process of matching the delay times and modulation rates of tempo-based presets with those of the music. Whenever a tempo-based preset is loaded, the Tap button LED flashes. To set tempo from the front panel, press the Tap button twice in time with the music. It is not required to enter what “could be” the delay time in milliseconds. Just press the Tap button twice, and the MPX 110 will calculate the appropriate delay time. To change tempo, just press the Tap button twice again in the new rhythm. Tempo can also be set using audio input (a must for live performances), a dual footswitch, or an external MIDI device that uses Continuous Controller or Program Change messages.

MIDI Control

The MPX 110 offers full MIDI control, thanks in part to a powerful editing tool called Learn Mode that allows patching of five front panel controls. Standard Continuous Controller or Program Change messages can be used to manipulate the Adjust, Effects Lvl/Bal, and Mix knobs, as well as the Bypass and Tap buttons. In addition, Program Change messages can be used to load programs. The MPX 110 also recognizes permanent, non-learnable MIDI patches that provide access to audio parameters that are not available from the front panel. These features mean that musicians never need to touch the front panel again during a live performance. And, in the studio, controls can be automated and recorded into a sequencing device for complete preset automation.

Easy Operation

The front panel Program, Variation, Adjust, and Effects Lvl/Bal knobs provide convenient control over all 240 presets and 16 User programs. The Program and Variation knobs work together to expedite program selection. The Program knob selects among Single, Dual, and User programs, which are listed around the knob for faster selection. The Variation knob selects one of 16 variations for the selected program. The Adjust and Effects Lvl/Bal knobs demystify the process of editing programs. The Adjust knob is patched to the most

critical parameters for each preset. All it takes is a simple turn of the knob to dial in the desired sound. For some presets, the Adjust knob is patched to multiple parameters to provide simultaneous control of related effects. In addition, the Effects Lvl/Bal knob controls the level of effects in Single programs or the balance of effects in Dual programs.

Legendary Effects

Plate, Gate, Hall, Chamber, and Room - Legendary Lexicon programs that recreate the acoustics of reverberant spaces.

Ambience - World-class programs available for room sounds without reverberation.

Tremolo - Programs that offer classic shapes such as square, sawtooth, triangle, sine, and rectified sine. The Adjust knob changes the synchronization of the left and right sweeps to produce mono or stereo effects, and the Tap button matches the tremolo rate of the program with the tempo of the music.

Rotary - Programs that simulate a Leslie™-style cabinet. Like the physical model, the high (horn) and low (drum) frequencies are separated and “spun” in opposite directions. Horn and drum speeds are independent, designed with the acceleration and deceleration characteristics that simulate the inertia of the original mechanical elements.

Chorus - Programs inherited from the award-winning PCM Series that pan six independently-randomized delay voices across the stereo field to create a rich, airy effect that multiplies a single source into several.

Flange - Programs that feature two 2-tap delays, one per channel. Mixing the two tap delays together creates characteristic flange effects such as swishing, tunneling, and fading.

Pitch - Programs that shift monophonic sources within a range of one octave up to two octaves down.

Detune - Programs with one pair of voices per channel, one sharp and one flat. These voices add a delayed or pitch-shifted version of the source to thicken the sound, creating a particularly effective simulation of double-tracking.

Delay and Echo - Programs that include mono (5.5 seconds), stereo (2.7 seconds), and 6-voice multi-tap effects – each of which can be used to create tape echo or digital delay effects.

Dual Programs - Programs that combine two independent effects in four routing configurations. Dual-channel processing allows the MPX 110 to combine Delay and Reverb algorithms, or either algorithm with a Flange, Pitch, or Chorus algorithm. Dual programs are available in four routing configurations: Dual Stereo (Parallel), Cascade, Mono Split, and Dual Mono.

Technical Specifications

Audio Inputs (2)

Input Level: -30dBu to +4dBu

Input Impedance: 500k unbalanced 1/4" connectors for direct instrument input (unit detects a mono input on the right input)

Audio Outputs (2)

Output Level: +8dBu typical

Output Impedance: 75 1/4" connectors for headphone output (right used for mono output; left used for stereo headphones)

Digital Audio Output: Coaxial RCA

Format: 24-bit digital S/PDIF (always active)

Sample Rate: 44.1kHz

Footswitch: 1/4" T/R/S connector for bypass and tap

Frequency Response: Wet/Dry: 20Hz - 20kHz \pm 1dB

THD + Noise: <0.05%, 20Hz - 20kHz

Dynamic Range: **A/D:** >100dB typical, 20Hz - 20kHz unweighted **A/A:** >95dB typical, 20Hz - 20kHz unweighted

Conversion: 24-bits analog-to-digital, 24-bits analog-to-analog, 44.1kHz sample rate

Crosstalk: >45dB

Internal Audio DSP: 24-bit

Dimensions: 19" W x 1.75" H (1U) x 4" D (483 x 45 x 102mm), rack mount standard

Weight: 2.125 lbs. (.959 kg)

Power Requirements: 9 volts AC (wall transformer provided in North America & Europe)

Operating Temperature: 32° - 104°F (0° - 40°C)

Maximum Humidity: 95% without condensation