# Multiple Processor FX

## Highlights

- *World-class Lexicon reverb: Plate, Gate, Hall, Chamber, and Ambience*
- *2 DSP engines including Lexicon's proprietary LexiChip®*
- *24-bit A/D and D/A*
- *200 presets; 50 user programs*
- *Up to six simultaneous effects*
- *Multiple delay, modulation, and pitch effects*
- *Multi-effects combine Delay with Reverb, or either with; Flange, Pitch, Chorus, Rotary, Parametric EQ, Sweep Filter, and Tremolo*
- *Large graphic display*
- *S/PDIF input and output*
- *Balanced analog inputs and outputs (XLR and 1/4")*
- *Independent processing on each input*
- *Tap Tempo for instant setting of delay and modulation times (may be set using footswitch)*
- *Full MIDI control*
- *Internal power supply*
- *Optional MPX R1 remote controller*

The MPX 1 employs two separate DSP processors: our proprietary LexiChip® to deliver world-class stereo Reverb and Ambience algorithms and a separate DSP chip to create additional effects. The result is uncompromised Lexicon stereo reverb and ambience effects that are available all the time, whether running alone or in conjunction with Chorus, Delay, EQ, Modulation, or Pitch effects. Many "multi-effect" processors don't meet this basic requirement. The MPX 1 not only meets this standard expectation, but has enough processing power remaining to run even more effects.

## Instant Access

Six effect types in the MPX 1 are always accessible via dedicated, back-lit buttons on the front panel. Each effect "block" is independent, with its own Bypass, Level, and Mix controls. The audio path through each effect is in stereo. Selecting new effects for programs is simple, with an arsenal of effects for each block (56 total) just a button push away.

## Quick and Easy Program Fine-Tuning

The MPX 1 comes loaded with 200 carefully crafted presets that reflect its versatility. Fine-tuning presets to match music or soundtracks is quick and simple thanks to pushbutton access to a Soft Row that holds the most useful parameter combinations for each program. Creating or restructuring programs is also easily accomplished with an Edit Mode that provides an extensive pool of effect parameters.

## On-Board Help

The MPX 1 offers a built-in help feature to provide guidance through all front panel controls. Pressing and holding any button will display a message that explains its function without executing its action.

This allows exploration of most functions without ever opening the user guide. In addition to press-and-hold help, the MPX 1 has an optional sleep mode help that automatically displays useful messages when the system is idle.

## Easy Operation

The front panel of the MPX 1 includes dedicated indicators and displays that provide instant feedback of in-use and available features. Effect select buttons light to show currently active effects. A Tempo LED flashes to indicate the current tempo in programs that utilize tempo-controlled delay times or modulation rates. A Tap button allows tempo changes on the fly. The A/B LED lights to signal times when the user can take advantage of the A/B button to morph between effect or parameter variations. A numeric display makes program and patch numbers highly visible. An alphanumeric display shows parameter names and values, preset numbers, and algorithm routings. Dedicated Mix and Patch buttons provide instant access to mix and level settings of single or multiple effects, as well as the MPX 1 patch system. The Patch button lights whenever a patched parameter is displayed. Bypass toggles the master bypass. The Options button lights to indicate that additional functions and features are available.

## Effects

The MPX 1 has 56 **Chorus, Delay, EQ, Modulation, Pitch,** and **Reverb** effects. Each embodies the audio quality and control flexibility needed in a dedicated processor. Effects include: high-precision (32-bit) parametric EQ; rotary speaker cabinet simulator; high-quality 2-voice pitch shifter; delays and Echoes (Dual, Mono, and Stereo); Looper and Ducker; multi-voice stereo Autopanner, Chorus, Flangers, Phaser, Wah, and more.

## Reverb

Lexicon's renowned reverb algorithms are the foundation of the MPX 1: **Ambience, Chamber, Hall, Gate,** and **Plate**. All are true stereo with independent processing of left and right inputs. Thanks to its LexiChip® processor, loading a reverb into a program on the MPX 1 can be done regardless of which other effects are running.

## Effect Ordering and Routing

Effect ordering and routing within each program is flexible with the MPX 1. Each of the six effect blocks is independent in each program. Effects can be arranged in any order by "dragging and dropping" them on a visual map. Similarly, a routing map allows distribution of the six effect blocks across two parallel stereo paths, which can be split and merged at multiple points. The routing map is rewired by changing graphic "patch cord" connections.

## Program Library

The MPX 1 offers an extensive program library that is crafted to provide sounds suitable for performance, production, and sound design applications. These programs exploit the unique characteristics of each effect, and furnish useful examples of effect combinations that can be created with the MPX 1. A built-in database function makes it simple to locate a desired program. This database is user-definable, allowing reorganization as needed.

## Options Button

The MPX 1 is designed to provide as much control as possible, while keeping unused options ready until needed. An Options button lights to indicate that additional features are available with the current display. Press the Options button to access these features: Delay parameters allow delay times to be displayed in feet, meters, milliseconds, or echoes-per-beat. Rate parameters can be displayed in Hertz(Hz) or cycles per beat. Feedback parameters include an option that allows effect blocks to be inserted in delay or echo feedback loops. Patch options automatically "learn" MIDI control sources.

## Patching System

The ability to control dynamic effect parameters is essential to create great sounding programs. The MPX 1 patch system provides over 150 controllers that can be assigned to any effect parameter including: LFO(2), ADR(2), Envelope Follower(2), Arpeggiator, Random Generator, A/B Glide, Tempo, and a Sample and Hold Generator. In addition to five patches per program, there are ten global patches available at all times.

## MIDI Implementation

The MPX 1 offers extensive global MIDI control for individual and master Bypass, Mix, and Level controls as well as A/B, Tap, and all effect parameters. Tempo parameters synchronize to incoming MIDI clock, or the MPX 1 can transmit its own MIDI clock based on Tap tempo. Internal control sources such as audio levels, LFOs, ADRs, S/H, and pedal can be sent as Continuous Controller messages. A built in arpeggiator "plays" MIDI sound generators and produces synchronized audio effects.

**www.lexicon.com/mpx1**

# MPX 1

**Analog Audio Input:** XLR and 1/4" balanced (T/R/S)
**Input Level:** -2dBu to +20dBu, balanced;
-14dBu to +8dBu, unbalanced
**Input Impedance:** 100kΩ, balanced; 50kΩ, unbalanced

**Analog Audio Output:** XLR and 1/4" balanced (T/R/S)
**Output Level:** +18dBu
**Output Impedance:** 600Ω unbalanced

**Digital Audio Input:** Coaxial RCA
**Format:** 24-bit S/PDIF
**Sample Rate:** 44.1kHz

**Digital Audio Output:** Coaxial RCA
**Format:** 24-bit S/PDIF
**Sample Rate:** 44.1kHz

**Conversion:** 24-bit A/D; 24-bit D/A
**Internal Audio DSP:** 20-bit; 32-bit

**Frequency Response:** 20Hz - 20kHz ±1dB
**Crosstalk:** -60dB
**THD:** 0.01%, 20Hz - 20kHz

**Dynamic Range:** D/A: >95dB typical,
20Hz - 20kHz, unweighted
A/D: >90dB typical,
20Hz - 20kHz, unweighted
A/A: >95dB typical,
20Hz - 20kHz, unweighted
**MIDI Interface:** 7-pin DIN connector for MIDI IN
and powered bidirectional remote;
5-pin DIN connectors for
MIDI THRU and OUT
**Footswitch:** 1/4" T/R/S connector for bypass and tap
**Footpedal:** 1/4" T/R/S connector
(10kΩ - 100kΩ impedance)

**Power Requirements:** 100 - 240 volts AC, 50 - 60Hz, 25 watts
(3-pin IEC connector)
**Remote Power In:** 2.5 mm 9 volts AC (not included)

**Dimensions:** 19" W x 1.75" H (1U) x 9" D
(483 x 45 x 289 mm), rack mount standard
**Weight:** 6.125 lbs. (2.8 kg)

**Operating Temperature:** 32° to 104°F (0° to 40°C)
**Maximum Humidity:** 95% without condensation