480L V. 4 Software and the Classic Cart—Not Just A Software Upgrade, It's A Whole New Machine...

**EXICON**100 Beaver Street
Waltham, MA 02154
H A Harman International Company

# The most comprehensive software enhancements in Lexicon's history have just been released

480L Software Version 4.00 480L Classic Cart Version 1.00





For nearly a decade the distinctive "Lexicon Sound" and 480L LARC controller have become hallmarks of the audio industry. Today, more than ever, if it is in the top 100 on any chart — music, film, video, theatrical, even live touring performances, you'll find Lexicon. And more often than not, you'll find the 480L.

In an era that has seen countless effects boxes arrive and depart faster than leisure suits- the 480 remains the quintessential Digital Effects System. Why? At Lexicon, we continually redefine the state of the art. Our ongoing support by means of software enhancements insures that your facility will remain at the cutting edge of Lexicon's most recent and most powerful developments.

480L Software releases V2.00, V3.00, and the Program Pack have exemplified this philosophy. These enhancements have made the 480L the clear choice in signal processing for a variety of production, post production and mastering applications.

#### VERSION 4.00 AND THE CLASSIC CART—SOFTWARE THAT HERALDS THE FUTURE AND ENHANCES THE PAST

This new release packs more algorithms and programs than all previous software releases combined — over eighty programs for spatial enhancement and over sixty effects programs. But we didn't stop there. Version 4.00 includes a bank of 10 programs designed specifically to address the requirements of post production. We have also created programs tailored specifically for mastering and digital production applications. In all, Version 4.00 and the Classic Cart take the 480L from 9 Program Banks to 21!

#### FROM FAMILIAR PLACES...

When we introduced the 480L we broke new ground both in advanced hardware and new software creation for spatial embellishment. Our advanced programs could take advantage of the new engine and create a more refined window on acoustic reality. These new programs have a different sonic character than algorithms developed for the venerable and now classic 224XL. So we have re-introduced several programs from the 224XL in the Classic Cart for the 480L - the 224XL Concert Hall Bank, and the Classic Rich Plates Bank.

#### ... TO DRAMATIC NEW SPACES

New research into acoustics has brought about refinements to Lexicon's preeminent Reverberation program - Random Hall. New room sizes have been added from ultra-small (1-meter) to very large (39-meters). A high precision RT crossover control allows a more uniform timbral decay—particularly when matching recorded room ambience and reverberation. An output shelf equalizer provides additional control of RT mid decay. And for post-production applications, Infinite RT has been incorporated. These enhancements combine to make the New Random Hall the benchmark for digital spatial emulation.

The unique **480L Ambience** Program now includes ultra small sizes. Ideal for post-production, Ambience emulates the movement of a stereo microphone array from the source to the rear of the space that ambience creates. The new ultra-small sizes allow emulation of spaces like car interiors or refrigerators!

#### TWIN DELAYS AND LEXICON PRIME TIME III - REDEFINING DELAY EFFECTS

Lexicon invented digital modulated delay based effects with the introduction of the PCM-41, PCM-42 and the legendary Prime Time Delays. The **Prime Time III** programs for the 480L take this to the next step - Pitch Events. Imagine having two PCM-42's in one of the 480L's machines, except that the standard modulation controls have been replaced by a Pitch Event "Time Window" control, Speed control and "Max Pitch Shift" Controls. These unique new parameters provide the ability to modulate both the amount and rate of the pitch shift - *then hold that value* for some amount of time - *then reverse pitch shift*. The program also includes crosspanned feedback paths *between the processors* to produce effects you haven't begun to imagine!

The new **Twin Delays** programs provide ultra-clean 18-bit 4-voice delay effects with several twists. The first two voices have precision level and panning controls for both delays and feedback paths. Now things get interesting. The second delay voices have *pre-fader - post delay* feedback paths that *crosspan!* A Master delay parameter simultaneously rescales times for all delays in the program making tempo matching quick and simple. Last but not least, two sample increment fine delays for left and right channels are provided for mastering and digital production applications.

#### Two Lexicon Classic Delay Effects - New for the 480L

The legendary 224XL **6-Voice Chorus** programs provide six independent delay voices each with precision level, panning and pre-fader feedback controls, two of which crosspan. Master high frequency rolloff and diffusion controls allow you to soften the chorus or keep it razor sharp, and a master delay control adds delay to all voices, while maintaining delay offsets between them. This program provides everything from an ultra-lush multi-voice chorus to detuning and delayed panning effects!

With the new **6-voice 1/3 Octave Multiband Delay** program, each delay voice is fed through a user defined 1/3 octave digital filter and delay tap, then through precision level and panning controls. Two feedback delays from voices 1 and 4 are routed back to the left and right inputs. The results can be anything from a filtered delay effect ideal for metal guitar to a stadium emulation, or megaphone, 2-way radio, telephone...well, you get the picture.

#### DIGITAL DYNAMICS, FREQUENCY DYNAMICS AND DISTRESSION

The 480L **Digital Compressor** from the Program Pack V1.00 was incorporated in V4.00. The 480L Compressor has several unique qualities. Unlike standard analog compressors that reduce gain above the threshold, the 480L Compressor adds gain below the threshold. Above the threshold, the 480L Compressor maintains unity gain. This means that peak information that usually gets squashed by analog compression methods *remains perfectly intact* while overall program loudness is increased! There is an adjustable look ahead delay that pre-forms the attack envelope to reduce distortion, adjustable attack and release constants and a separate digital expander.

The new **Frequency Dynamics** programs take compression a step further. A digital crossover separates low and high frequency information. Each bandpass is fed to a separate compressor section and the outputs of the compressors are fed to a mix control that adjusts the ratio of low and high frequency compressed information. A look ahead delay, attack and release parameters, and a digital gate are also provided. This program can be a lot more than just subtle ...you'll love to print drums and vocals through it.. and even the finished mix as a final pass!

**Distression** is a step beyond Frequency Dynamics. We've added a separate digital distortion module to the high frequency section of Frequency Dynamics. With a crossover and high frequency rolloff control that can be set over full bandwidth, this program can provide anything from subtle high frequency overloads to sublime frequency distortion effects.

#### ROUNDING THINGS OUT...

For Mastering applications, the new **PONS** (<u>Psycoacoustically Optimized dither Noise Shaping</u>) **Adjust** Program can *improve the signal to noise of 16 bit recordings by 6dB*. The Stereo Adjust Program now includes a Blumlein Shuffler, and new programs for MS Decoding, Phase Inversion and a 60 Hz Notch are provided. The Panorama 3D program from the Program Pack V1.00 is also included.

A new Bank called Test & Reference includes a precision **Digital Oscillator** with a 90dB digital meter, and a new **Digital Pink Noise** program with output level control. Also included is the new Binaural Simulator that emulates loudspeaker playback over headphones.

#### **AUTOMATED EFFECTS AND MORE**

Lexicon's Dynamic MIDI® has always been an integral part of the 480L. V4.00 expands on this with the addition of MIDI System Exclusive Automation and Bulk Dumps. When MIDI SysEx automation is enabled, every LARC fader move, button press, or program change is echoed as MIDI SysEx Data and sent to the MIDI output connector. If this data is stored in a sequencer, along with a timing reference, and fed back to the MIDI input, the entire sequence of recorded effects and parameter changes will be recalled. In addition, bulk dumps and restores of programs and registers either from internal memory, cartridge memory or the machines themselves can now be achieved.

Another new feature allows you to set programs that the 480L will default to after powering up. This can save time and frustration when many engineers have access to the system and do not always return to default settings.

#### BRING YOUR 480L INTO THE FUTURE

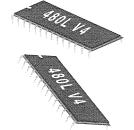
Version 4.0 Software and the Classic Cart are the most exstensive updates Lexicon has ever offered. To arrange a demonstration or to get the details on how you can upgrade to Version 4.0 and the Classic Cart, contact your authorized Lexicon dealer, or call us directly at (617) 736-0300.

## **A New Dimension In Effects Processing**

### **Program Directory - Software Version 4.0**

version 4.0 software
version \$699.00A







▲ Trade-in Program Pack for Version 4.0 \$200, call Lexicon for details.

Bank 1 480 Halls	Program Name									
	1.1 Large Hall	1.2 Large + Stage	1.3 Medium Hall	1.4 Medium + Stage	1.5 Small Hall	1.6 Small + Stage	1.7 Large Church	1.8 Small Church	1.9 Jazz Hall	1.0 Auto Park
Bank 2 480 Rooms	2.1 Music Club	2.2 Large Room	2.3 Medium Room	2.4 Small Room	2.5 Very Small Room	<i>2.6</i> Large Wood Rm	2.7 Small Wood Rm	2.8 Large Chamber	2.9 Small Chamber	2.0 Small & Bright
Bank 3 Wild Spaces	3.1 Brick Wall	3.2 Buckram	3.3 Big Bottom	<i>3.4</i> 10W-40	<i>3.5</i> 20W-50	3.6 Metallica	3.7 Silica Beads	3.8 Inside Out	3.9 Ricochet	3.0 Varoom
Bank 4 Plates	4.1 A Plate	4.2 Snare Plate	4.3 Small Plate	4.4 Thin Plate	4.5 Fat Plate					
Bank 5 Effects	5.1 Illusion	5.2 Surfin'	5.3 Vocal Whispers	5.4 Doubler	5.5 Back Slap	5.6 Rebound	5.7 Git It Wet	5.8 Sudden Stop	5.9 In the Past	5.0 Tremolo L & R
Bank 6 Twin Delays	6.1 4-Voice Double	6.2 Double Delay	6.3 4-Bounce Delay	6.4 Pitter Patter	6.5 X-Pan Double	6.6 Delay Cave	6.7 Circles	6.8 There & Back	6.9 Soft Roller	6.0 On and On
Bank 7 Samplers*	7.1 Stereo 3 Sec.	7.2 Mono 6 Sec.	7.3 Mono 3 Sec.	7.4 Dual Rate Change	7.5 Mono Fwd & Rev	7.6 Stereo 3S Drum	7.7 Dual Rate Chg Drum	7.8 Mono Fwd Rev Drum	7.9 Stereo 10S Rate Chg	7.0 Mono 20S Rate Chg
Bank 8 Pitch/ Doppler	8.1 Pitch Change	8.2 Pitch Chorus	8.3 1% Up 1% Down	8.4 Barber Pole	8.5 Half Steps	8.6 Stair Case	8.7 XPres Subway	8.8 Indy Corner	8.9 Airport Land	8.0 Airport Tkof
Bank 9 Mastering	9.1 The In-Out	9.2 Stereo Adjust	9.3 PONS Adjust	9.4 M/S Decode	9.5 Invert L-R	9.6 Channel Swap	9.7 Stereo Param EQ	9.8 Stereo 60Hz Ntch	9.9 Mono Param EQ	9.0 Panorama
Bank 10 Compressor	10.1 2:1 Comp	<i>10.2</i> 6.24:1 Comp	10.3 18.28:1 Comp	10.4 Transfer	10.5 Vox Easy	10.6 FM	10.7 Nailed	10.8 Noise Gate	<i>10.9</i> 2-Slp- Mach A	10.0 2-Slp- Mach B
Bank 11 Random Hall	11.1 Large R Hall	11.2 Large R + Stage	11.3 Medium R Hall	11.4 Medium R + Stage	11.5 Small R Hall	11.6 Small R + Stage	11.7 Large R Church	11.8 Small R Church	11.9 Jazz R Hall	11.0 Auto Park R
Bank 12 Random Spaces	12.1 Music Club R	<i>12.2</i> Large Room R	12.3 Medium Room R	12.4 Small Room R	12.5 Very Small Fl	12.6 Large CHamber F	12.7 Small Chamber R	12.8 Small & Bright R	12.9 Chorus Noon	12.0 Wet & Tacky
Bank 13 Ambience	13.1 Very Large Ambience	13.2 Large Ambience	13.3 Medium Ambience	<i>13.4</i> Small Ambience	<i>13.5</i> Strong Ambience	13.6 Heavy Ambience	13.7 Ambient Hall	13.8 Announcer	13.9 Closet	13.0 Galed Ambience
Bank 14 Post Ambience	14.1 Car Interior	<i>14.2</i> Living Room	14.3 Bathroom	<i>14.4</i> Kitchen Ambience	<i>14.5</i> Kellars Cell	14.6 Small Foley	<i>14.7</i> Warehouse	14.8 Airhead	14.9 Dial It Up	14.0 Reverb Tail
Bank 15 Prime Time III	15.1 Prime Chorus	<i>15.2</i> Slap Chorus	15.3 Bounce Glide	15.4 Swirls	<i>15.5</i> Heavy Detune	<i>15.6</i> Shake It Up	<i>15.7</i> Wowza	<i>15.8</i> Wowza 2	<i>15.9</i> Vocalz	15.0 XFlange
Bank 16 Freq. Stuff	16.1 Mix Finish	16.2 BG Vocals	16.3 Drums	16.4 AC Guitars	16.5 Bass Thump	16.6 Carbon Mic	16.7 Saxophone	16.8 Horn Blast	16.9 Softener	16.0 Some Fuzz
Bank 17 Test & Reference	17.1 100 Hz -12dB	<i>17.2</i> 500 Hz -17dB	<i>17.3</i> 500 Hz -12dB	<i>17.4</i> 1 kHz -17dB	17.5 1 kHz -12dB	17.6 10 kHz -12dB	17.7 30 Hz Slate	17.8 A-440 Tuner	17.9 Pink Noise	17.0 Binaural Simulator

# classic cart \$699.00



#### Program Directory - 480L Classic Cart\*\*

Bank	Program Name									
Bank 18 Concert Hall	18.1 Concert Hall	18.2 Medium Hall	18.3 Small Hall	18.4 Gold Hall	18.5 Guitar Hall	18.6 Reggae Hall	18.7 Reflex Hall	18.8 Bright Hall	18.9 Dark Hall	18.0 Oliver's Well
Bank 19 Rich Plate	19.1 Large Plate	19.2 Drum Plate	19.3 Vocal Plate	19.4 Vox Plate #2	19.5 Slap Plate	19.6 Guitar Plate	19.7 Short Plate	19.8 Horn Plate	19.9 Echo Plate	19.0 Silver Plate
Bank 20 6-Voice Chorus	20.1 Woo-Woo	20.2 6 Vc Korus	20.3 3-Voice Chorus	20.4 4-Voice Chorus	20.5 Ekoz & Korus	20.6 Vocal Chorus	20.7 Soft Echoes	20.8 Hard Echoes	20.9 Canyon Korus	20.0 Tuff Stuff
Bank 21 Multiband Delays	21.1 Closet	21.2 Telephone	21.3 Phartage	21.4 Stadium	21.5 Downstairs	21.6 Bandsweep	21.7 Bass Echoes	21.8 Band Bounce	21.9 Whispers	21.0 On Stage

<sup>\*</sup> Programs 7.9 and 7.0 require the Sampling Memory Expansion option. 
\*\* Programs in Banks 18-21 require the Classic Cart option.

Items shown in Black are resident in V3.0 Software Items shown in Blue are included as part of V4.00 or the Classic Cart