

STUDIO SERIES

PCM 80 PITCH FX CARD



The Pitch FX Card for the PCM 80 provides some of the finest and most flexible pitch shifting algorithms Lexicon has ever developed. In conjunction with outstanding pitch shifting effects, you also have a choice from four stereo Lexicon reverbs to complement any sound. With pitch shifting in one cent increments, you have the ability to finely correct any pitch problem that you might have on a track, and you can also use the PCM 80's extensive patching and modulation capabilities to create incredibly smooth doubling and chorusing effects. The Pitch FX card also offers pitch shifting up to 3 octaves up or down.

100 All New Presets

To get you started, there are 100 all new and very useful presets in addition to the 200 presets in the PCM 80. Included among the presets are a wide range of effects designed specifically for pitch correction, adding harmonies, and special FX.

The presets are organized by application. The first bank is for Vocal and Instruments, and includes a row each for Vocal Shift, Vocal Harmony, Guitar Magic, Instrument Shift & Harmony, and Percussion & Tempo. The second bank is for Music & Sound Design and includes one row each for Sci-Fi FX, Pitch & Delay, Pitch Sequences, Pads & Drones, and Utilities (including VSO, Dual Mono, and "Clean Slate" versions of the algorithms).



The Pitch FX Algorithms

Six new algorithms are included in the Pitch FX Card: **Stereo-Chmb**, **Dual-Chmb**, **Dual-Plt**, **Dual-Inv**, **VSO-Chmb**, and **Quad>Hall**.

Stereo-Chmb provides a full stereo pitch shifter in which the two voices are synchronized together, to maintain perfect stereo correlation and provide the best quality shifting available. Perfect for pitch correction or adding a single harmony to a sound, these effects also include a full stereo chamber reverb. We've also incorporated a sub-mixer (the same sub-mixer included in the **Dual FX Card**) which allows complete routing flexibility of the pitch and routing effects. In addition to stereo, you have the ability to run two dual mono configurations: dual mono in/stereo out, or dual mono in/dual mono out. You can choose to have the pitch shift followed by reverb, reverb followed by pitch shift, or run them in parallel. Or any point in between. These routing capabilities are available on all algorithms except **Quad>Hall**.

VSO-Chmb (Varispeed) is useful for on-the-fly time compression. VSO-Chmb has the same controls and pitch shifting as the Stereo-Chmb Algorithm, except that the pitch shift is described in percentage to offset the varispeed on your tape machine. For example, if you varispeed up 7 percent, you set the varispeed on the PCM 80 Pitch FX

to + 7% to match the machine, and the pitch will drop the required 7%, back to your original pitch.

The **Dual** algorithms (Dual-Chmb, Dual-Plt, Dual-Inv) are similar to the Stereo-Chmb and VSO-Chmb algorithms, except that the two voices are independent, allowing two different harmonies to be created. For example, you can set one voice up a Minor 3rd, and the other down a Major 4th, thus creating a minor chord from your original starting note. Also included in the Dual algorithms is a pair of independent 1.25 second delay voices with independent feedback and cross feedback controls. These can be used to delay and add feedback into the pitch shift, thus stacking harmonies together.

The other algorithm in the PCM 80 Pitch FX is the **Quad>Hall** algorithm, in which 4 independent voices of pitch shifting are provided. Along with the pitch shift voices, there are 4 delay voices (1.25 second) which allow feedback and cross feedback, to create dense chorusing, quadruple-tracking, and some outrageous effects.

Extensive Control

As you'd expect from any FX card for the Lexicon PCM 80, the Pitch FX card takes full advantage of the wide range of control options offered within the PCM 80. With the Dynamic Patching functionality the Pitch FX card lets you play your effects. For example, you can modulate your pitch via the internal LFO, and also have those modulations in sync with the tempo of your music. Or, you could have the modulations vary dynamically, based on how hard you are playing. Of course, the delays can also be synchronized to tempo.

The Adjust knob control allows several useful options. For example, there are several presets where by loading the program, you simply turn the adjust knob to select the amount of pitch shift. In some cases, we have set up chordal variations such as different inversions or modal changes simply by turning the Adjust knob.

By adding MIDI to the Pitch FX, a whole new set of possibilities is opened up. For example, as you turn the adjust knob to correct for pitch fluctuations on a track, you can record those moves in a sequencer, allowing any corrections to be automated. Also, by utilizing MIDI, you can send the PCM 80 Pitch FX a set of notes which comprise the chord on the Quad>Hall or Dual algorithms. And of course, we offer the full range of Dynamic MIDI® capabilities.

Low Note

Another unique feature of the Pitch FX card is its Low Note parameter. In the Pitch algorithms, we provide this parameter to indicate what will be the lowest anticipated note the PCM 80 will have to process. When this value is higher, the PCM 80 will have more power to process the pitch, resulting in a smoother final sound. This is especially useful for critical work such as vocal correction.

The Next Step for Your PCM 80

The Pitch FX Card is the logical extension of the vast capabilities of the PCM 80. It offers a whole new set of effects capabilities and specific tools which will make the PCM 80 *the* indispensable processor in your rack. Plus it offers a whole new set of creative possibilities which can help turn your ideas into reality. Be sure to check out all the cards available for the PCM 80, including the Dual FX card, and preset cards from notable artists, including the Scott Martin Gershwin Post FX Card and the David Rosenthal Music FX card.

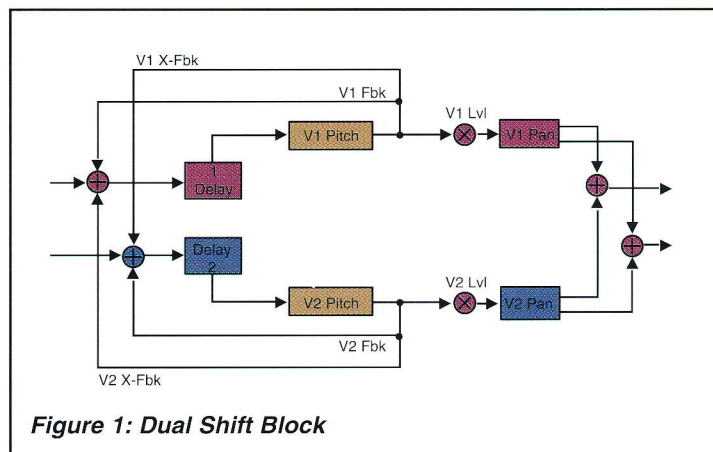


Figure 1: Dual Shift Block

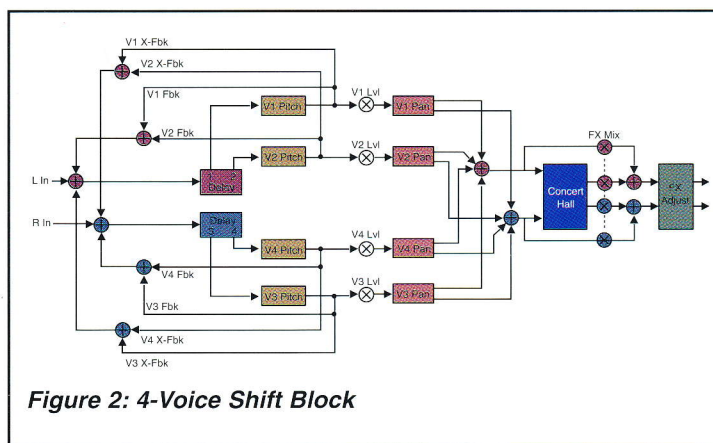


Figure 2: 4-Voice Shift Block

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