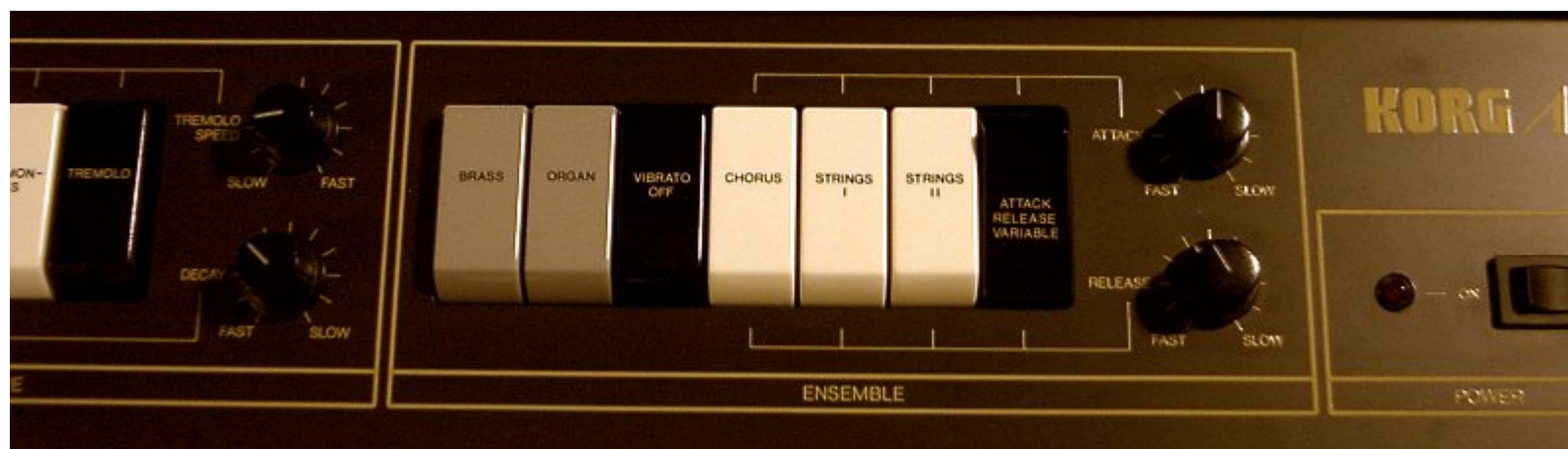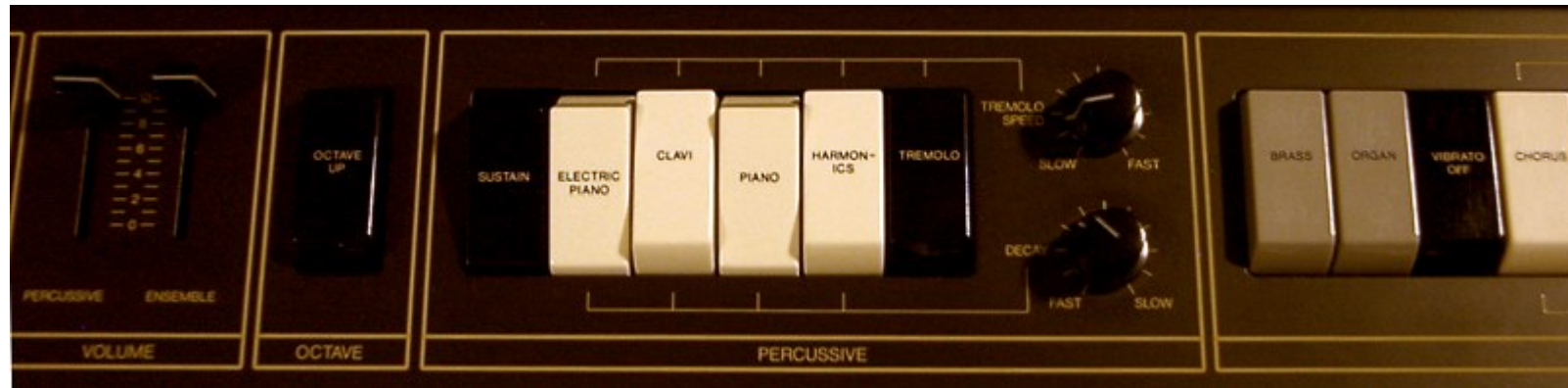# The Korg Lambda ES-50

The Lambda was Korg's second or third generation "polyphonic ensemble" board, released around 1979. A simple looking affair with "home organ" style "tone tablets", many modern synthesists and keyboard players might dismiss the Lambda out of hand as limited and primitive due to its "homely" looks. They won't know what they're missing! The Lambda's sound is unique, *very* analog and verges on the obese at times.

The Lambda sports 48 keys and is **fully polyphonic** as each voice is based on three high frequency VCOs feeding TOS/Divider circuitry. The thing that saves this from sounding just like any other "string machine" or paraphonic synth is the fact that each key triggers two seperate voltage-controlled envelope generators (one for each section) for a total of 96! *There are 96 discrete envelopes and VCAs in this thing!* The sounds are then sent through a filter then two seperate BBD analog delays that provide a rich, warm chorus. The Lambda has two instrument sections, **"Percussive"** and **"Ensemble"**.

Even though the Lambda is based on divide-down circuitry, its still very lush sounding due to the fact that the three VCOs of the **"Ensemble"** section are seperately detunable. The presets are aptly named: Brass, Organ, Chorus, String and String2. This section also has adjustable Attack and Release controls, a nice feature on a "limited" board. The Brass sound even has adjustable cutoff frequency for its LPF! There is also a useful "tone" control which is a simple shelving LPF.

The **"Percussive"** section is only dual-oscillator but is still rather fun and useful - featuring Electric Piano, Clavi, Piano and Harmonics. There is an adjustable tremolo (VCA mod) feature and an adjustable Decay envelope for these sounds. Decay can be enabled with the "sustain" tablet or a pedal. Once again, there is a useful "tone" control which is a simple shelving LPF. Adjustable "keyclick" (more of a "clonk" really) is available for the E-Piano sound. These presets won't win any awards for emulation but have a lot of character in their own right.

By themselves, some of the sounds can be just a bit thin, but all presets are available simultaneously so just start layering them, add some of that lush vintage onboard BBD Chorus and it becomes pure **magic**! I've even been able to get some sweet "early polysynth" sounds *very* reminiscent of the scarce Korg PS3100! The "Chorus" preset is kind of an unearthly vocal tone based on pulse waves being filtered through multiple fixed Bandpass "Formant" Filters...very cool indeed and emminently useful in a mix. The strings are as lush and wide as you'd expect from even the best-loved vintage "string Machines", easily rivaling the Solina in my opinion. The joystick controls pitch-bend on the X axis and chorus speed on the Y axis. Changing chorus speed can be very expressive on pads, especially string sounds. The Lambda really shines as a totally unique and expressive instrument!

This is one of those "sleeper" boards that people tend not to notice, probably because of the aforementioned "home organ" vibe. Get past the fact that it looks like a piece of furniture and a plethora of great vintage polyphonic sounds lies just beneath the surface with a lot of unexpected user control. To hear the venerable Lambda in action, listen to the "chorus" backing pad on my song Inland Sea.

Here's some "quick & dirty" MP3s for the curious...these use **no external effects** at all...add a little reverb and its amazing:

Lambda Strings

Lambda Brass

Lambda Mix 1

[Lambda Mix 2](#)

[Lambda Soft Strings](#)

[Lambda High Strings](#)

I may have clipped my input in a couple of spots...sorry :/

For further info, feel free to download Korg's original [Lambda User Manual](#). If you are already a Lambda owner, you may find the [schematics](#) handy in case the unexpected happens.

For all things Korg related, don't forget to check out Benjamin Ward's [Kornukopia](#).

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