



# **CONTROL YOUR VOLTAGE**

**KORG CLASSICS WITH GUITAR**

**WORDS BY YOEL KREISLER**

My love of buttons and switches started out as a simple one; as a child I used to go into decommissioned submarines or airplane cockpits, pressing, pulling, pushing and switching everything I could, pretending I was piloting a submarine or a fighter jet. I was content at the time not having the buttons not really doing anything, maybe lighting up the odd LED every once in a while. As I got older and the digital age became more and more entrenched into my life, I realized that I missed having the tactile feedback of interacting with something in physical space. In the digital miracle that is the 21st century, a part of me pined for the return of doing something with my hands that meant something or created a real interaction that I could engage all my senses in.

This return to form, so to speak for analog equipment of yesteryear that I have written about

at length, is happening across the board, especially in the field of music. While in the '80s and '90s many musicians were complacent and content with the new renaissance of digital emulation of their old analog equipment, it only took a few years to realize that it's very hard to beat a real, physical interaction with a device that creates a real, physical electronic change in a circuit. While the analog amp and stompbox market has been exploding, so have the other disciplines of our fine profession, including synthesizers.

Big companies started to take notice of the popularity of emulation of classic hardware, and the insane market demand for real analog synths. The prices of the original models were rocketing sky high, and only in the last few years did any company catch onto this new analog trend. Companies like Arturia and Moog started releasing new analog

designs inspired by the sounds of the past, with the classic sounds we know and love. In the last few years, Korg has entered into the analog synth game with the reissue of the famous MS-20 synth, a cult classic and an absolute monster of sound. In only the last year, Korg took a bold move in re-releasing and recreating one of the most popular monosynths ever made, the ARP Odyssey, which is found on countless tracks across almost all genres, from metal all the way to jazz-fusion.

Unlike many famous analog monosynths, the Korg and ARP (the latter of which is now under the Korg umbrella) synths share a history with the electric guitar, albeit a small one. Pete Townsend was known to run his electric guitars through his personal ARP 2600, of which the ARP Odyssey was a "simplification," utilizing almost identical oscillator and filter circuits. These

synthesized guitars can be found on tracks like "Who Are You?" and "Going Mobile." Back in 1978, when the MS-20 was released, Korg touted the fact that the ESP (External Signal Processor) function on the MS-20 could turn the MS-20 into a guitar synthesizer, quite possibly the only true analog guitar synthesizer of the time and one of the only ever made (not counting signal processor guitar "synths," like the EMS Synthi Hi Fli or the

EHX Micro Synth) that could convert pitch to "control voltage" (CV), the language of analog synthesizers. Today, we are going to dive into using these synthesizers as tone tools for your own sonic explorations. These powerful sound machines are perfect for those who aren't afraid to get a little wacky and weird with their guitar tones. Those who dare to venture into the dark and endless dungeon of analog synthesis will be rewarded

with treasure troves of textural and emotive sounds that can make your guitar parts stand out amongst the sea of Tube Screamer tones. Korg graciously provided me with two of their finest analog synth reissues (the MS-20 Mini and the ARP Odyssey) to help you traverse these treacherous valleys of audio. I spent a good few months testing and experimenting with each one to pick out the best guitar tones from each one. So, without further blabbing, let's get patching.



# THE ARP ODYSSEY

## 1 The Fast Leslie

I am a huge fan of the Leslie speaker. It's one of the most magical and hypnotic effects there are, mostly in part due to its mechanical nature. There have been many attempts to emulate the Leslie speaker, most having to do with modulating some sort of combination of EQ curve (filter), volume, pitch, and phase. This clip is sort of inspired by those old emulations that time forgot, like the Shin-Ei Resly Tone, or the rare and unique Multivox LD-2. I plugged the guitar in and used the LFO on a high speed to modulate the filter.

## 2 Sample and Hold

This effect is similar to the one Townsend used on "Who Are You?" Using the Sample and Hold circuit on the Odyssey (which is almost an exact copy of the one found on the original ARP 2600), I ran the guitar and played a few chords, while the synth's filter chopped up the tone, feeding it the filter random voltages, opening it up and closing it at different intervals and states.

## 3 Manual Filter Control (Wah)

The ARP Odyssey has an expression pedal input, which can manually control certain aspects of the synth's sound. Here, I used it to manually control the filter, creating a warm and quite versatile wah-style sound.



# THE KORG MS-20



## 1 GUITAR SYNTH CONTROLLER

Here, I used the famous pitch to CV converter on the MS-20 to implement my guitar as a source to control the synth. It took quite a bit of trial and error to get it right, and like the originals, its tracking is far from perfect. However, it can be a useful tool in many musical situations. It's slightly glitchy and lo-fi, which is both its greatest strength and weakness.

## 2 SYNTH CONTROLLER MIXED IN WITH DRY

The pitch of the guitar itself can control the synth via CV, but in

addition to that, the dry signal of the guitar can also be mixed in. The ESP input can be overdriven as well, creating a really cool lo-fi gritty texture under the sharper synth layer.

**“...it’s an incredibly warm and dynamic sounding filter...”**

## 3 WARM FILTER MODULATION

The MS-20 filter has been copied over and over again in many different applications, including guitars. This comes as no surprise, because it's an incredibly warm and dynamic sounding filter on any application you use it on. Here I

modulated it to create a sort of faux tremolo or phaser type sound that's great for soft riffing and chords.

## 4 THE FLOATING WAH

Further delving into some of the dirtier sides of the ESP control by overdriving the input, I decided to play around with the filter. The resonant side of the MS-20 filter is part of what makes it so great; it overdrives beautifully and adds its own chewiness to the tone. I ran the filter to the LFO, to create a sort of “floating wah” sound.

That's just a little taste of what you can find waiting behind the knobs and sliders of Korg's latest analog synth

reissues. They are not only incredibly versatile in their own right as keyboards, but as musical tools to enhance your

current tones and explore new textures and sounds. Until next time my friends, happy twiddling!

