

Korg MS-20 – the semi-modular revolution

The Korg MS-20 synthesizer was released in 1978. This landmark indicated to American synthesizer manufacturers the coming dominant factor in the synthesizer field: Japan.

In its brief life span (production stopped in 1983), there were more than 20,000 (!) MS-20 sold. Monophonic ARPs and MOOGs and even the very popular Sequential Pro-One could only dream of such numbers!



 GREATSYNTHESIZERS.COM

Due to its semi-modular concept and integrated patchfield, the MS-20 is also known as “the poor man’s ARP 2600”.

“A budget classic – the poor man’s ARP 2600. Probably a good half of the facilities – at a quarter of the price – although that’s starting to creep up to a third of the price as the MS-20’s popularity grows rapidly.”

(Peter Forrest: *The A-Z Of Analogue Synthesizers*)



 GREATSYNTHESIZERS.com

Let's start by comparing these two instruments. While sound programming and patching, in particular, is done quite easily on the ARP 2600 (thanks to its clear layout and logical overall concept), musicians trying to do the same on the MS-20 could get pretty desperate ...

Chaos dominates the MS-20 patchbay, which is surely the most confusing patchbay on a commercially-produced market synthesizer. Am I exaggerating? Maybe. But I think it's impossible to combine, while playing, the MS-20 pre-patched signal and the puzzling patch area in realtime. Simple routine-modulations might work, but don't try patching a dozen cables ...

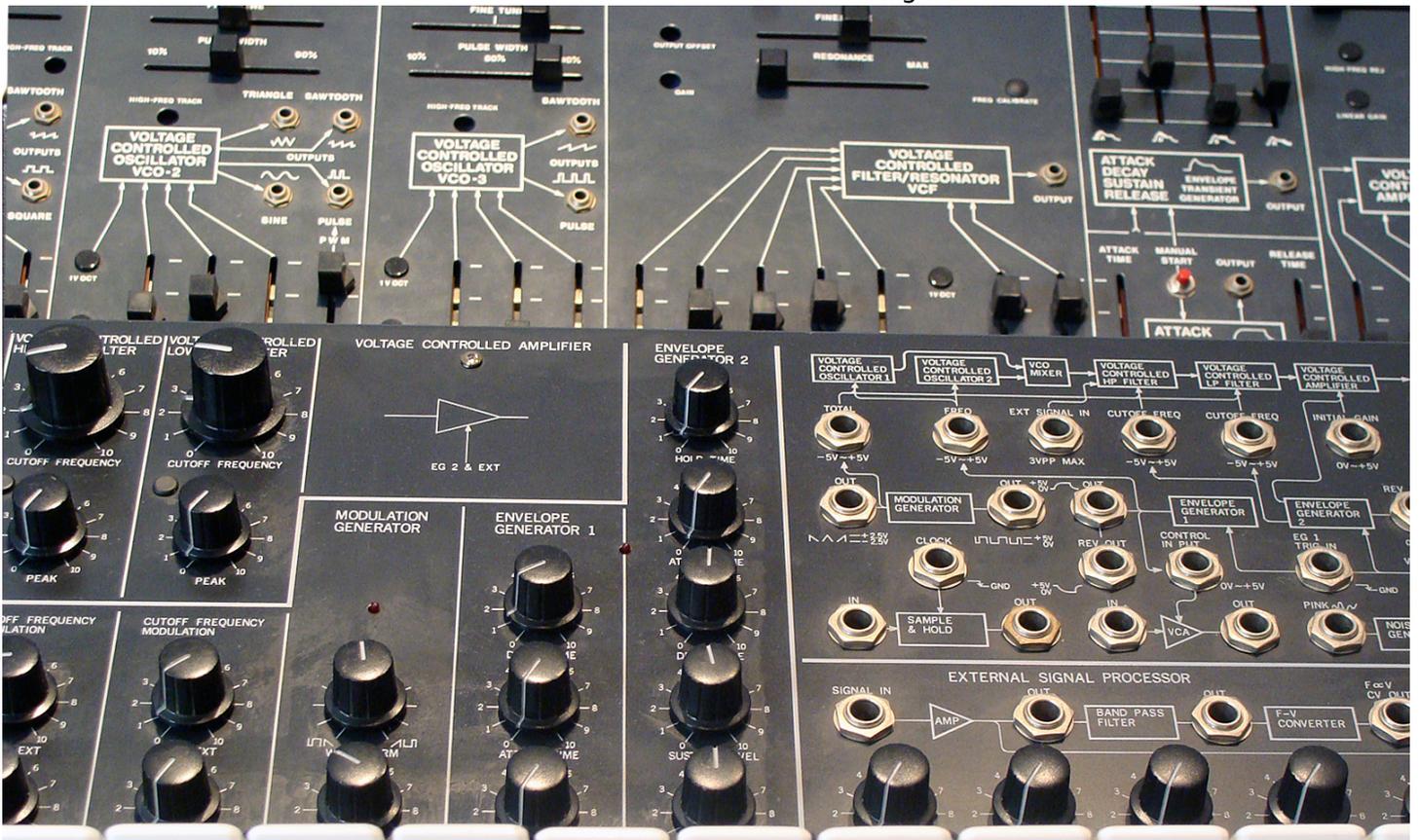


GREATSYNTHESIZERS.com

So “poor man” could also mean “poor musician” ...!

Concept of the “Small ARP 2600”

“A maximum of features at a very low price”... That might have been Korg’s philosophy when constructing the dual-oscillator MS-20 synthesizer. Maybe it didn’t mutate into an ARP 2600, but it is a sort of a cut-down version of the gorgeous PS-3100. Some people even say its predecessor is the small Korg 770. My ears tell me the MS-20 comes closer to a PS-3100 than to a 770 ...



Korg MS-20 and ARP 2600

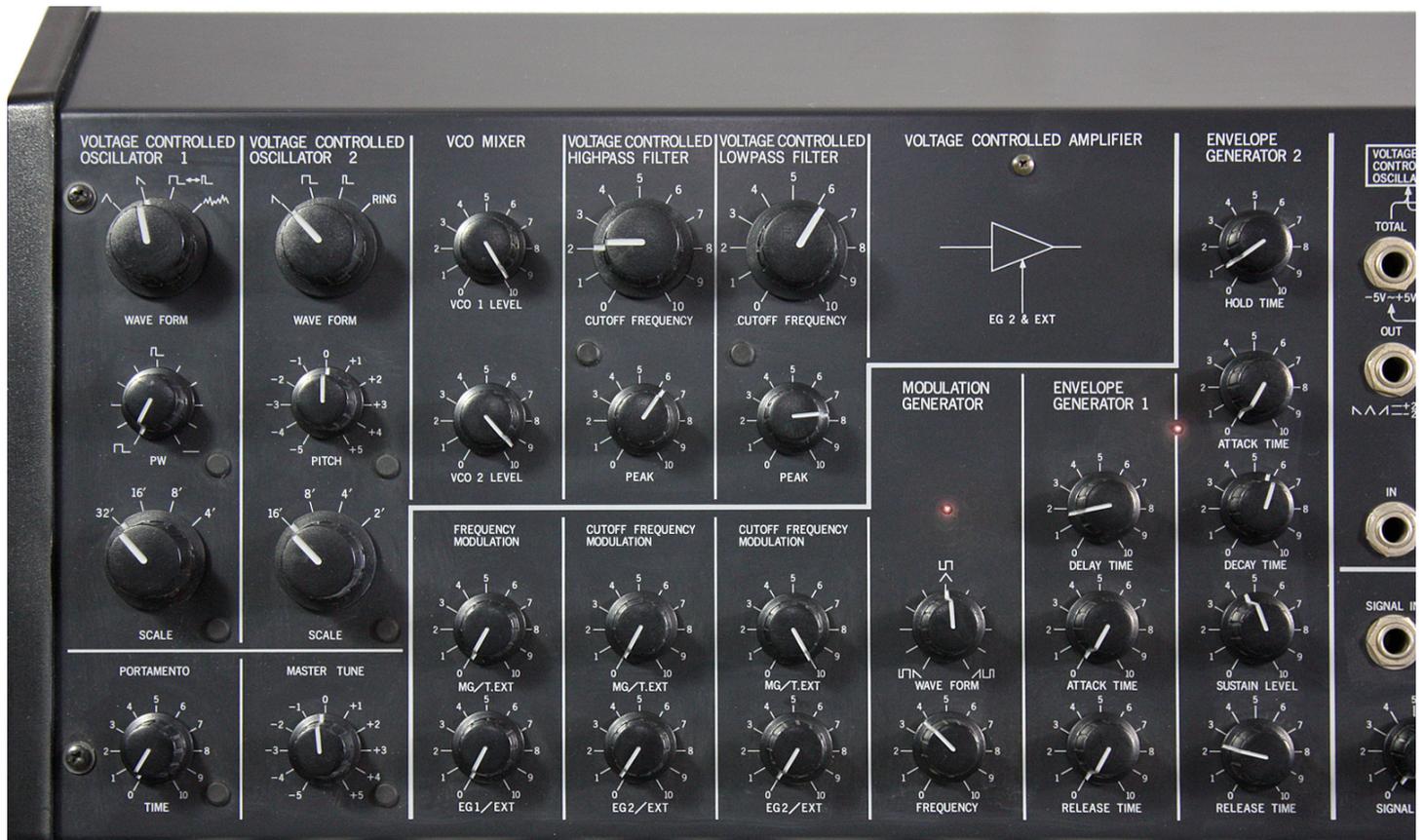
GREATSYNTHESIZERS.com

As soon as we leave the conceptual discussion and have a look at musical flexibility, that nice ARP 2600 is no bad comparison. Korg's MS-20 offers heaps of features, including 2 VCOs plus ringmodulator, 2 VCFs, S/H, noise etc. All these beauties, combined with a versatile patch field, has let the MS-20 become one of the most interesting FX-soundmachines. In some ways its potential for musical expression isn't far from an ARP 2600.

The following table provides a components list for both instruments:

	Korg MS-20	ARP 2600
VCO	2	3 (switchable to low frequ)
LFO	1	1 (3620 keyboard only)
VCF	12dB LowPass 12dB HighPass	24dB LowPass -
EG	ADSR Delay + AR	ADSR AR
VCA	2	2
Noise	White Noise Pink Noise -	White Noise Pink Noise Low Frequ
Extras	Ringmodulator Ext. Signal Prozessor / Envelope Follower Sample & Hold Portamento Assign. Wheel -	Ringmodulator Microphone (Ext In) PreAmp / Envelope Follower Sample & Hold Portamento (3604 + 3620 keyboard) Pitch Bend Knob (3604 + 3620 keyboard) 3x Voltage Processors Inverter Lag Processor Electronic Switch Spring Reverb Multiples Speakers

To sum it up: the association of MS-20 with ARP 2600 is not as far out as it may seem. The equipment and concepts of the two instruments are very similar.



GREATSYNTHESIZERS.com

Features

As a **pre-patched** synthesizer the MS-20 offers:

2 VCOs

- VCO1 – triangle, saw, pulse, noise. Range 32' to 4'
- VCO2 – saw, pulse 1, pulse 2, ringmodulator. Range 16' to 2'

VCO Mixer – just to let you know: one single VCO sometimes sounds brilliant ..!

2 VCFs – with individual CV inputs. Combining both filter results in BandPass, sounds great!

- HPF (with resonance)
- LPF (with resonance)

LFO (triangle, saw, pulse)

2 ENVs

- ADSR (+ hold function)
- AR (+ extra delay)

VCA 1 (+ external CV input)

Portamento

External Signal Processor

Wheel

Trigger Button

Master Tune



GREATSYNTHESIZERS.COM

The following features are offered via the **patch panel**:

- VCA 2** (+ external CV input)
- S/H generator** (with external clock input)
- ENV 1/2 reverse output**
- Pink & White Noise**

Those features are quite impressive, aren't they?

I forgot one rather dubious “highlight”: the 3-octave keyboard is a nightmare! Some MS-20 keyboards are so clunky and noisy you need headphones to hear the music above the din of the keyboard. Modern expressionists and “very” modern artists *could* assert that disturbing noises are part of the desired result ... The MS-20 keyboard is one of the cheapest constructions ever made, although I must admit, Roland keyboards of the late 70s were even worse. They didn't rattle that much, but they (and we) suffered from double trigger problems. And yes ... the Formanta Polyvoks keyboard is even much (!) worse, of course.



The Filter(s) - acoustic fingerprint of the MS-20

You are right: the MS-20 offers *two* filter sections. But when talking about “the” MS-sound, people generally have its wonderful 12dB low pass filter with dirty resonance in mind. It’s sort of an acoustic fingerprint of the MS-20, a distinctive source of unique sounds.

Even comparing the LPF with other Korg synthesizers, it’s in a class of its own. The MS-50 has a different filter sound, as does the huge PS-3100 – but on those instruments less aggressive resonance, less dirty sound variations are possible.

It is also noteworthy that the quality of the filter sound can vary greatly from model to model. I have had three units of this synthesizer over the years, all sounded very good, but one of the units in special was “a cracker”. The other two MS-20 were OK, but not *that* unique. Why? MKI filter ... MKII filter? I don’t know.



Such speculations are unnecessary in any way and often an attempt to justify extra high prices by claiming the instruments in question are part of a specific, rare series. Although the 12dB low pass filter is certainly the most characteristic feature of the Korg MS-series (MS-10, MS-20 and MS-50 use it), it's the 12dB high pass filter which brings in the *BASS* - believe it or not - and makes the Korg MS-20 so special.

"Having a genuine voltage-controlled high-pass filter with 'peak' (resonance) is a good bonus, and is important in producing a lot of the MS-20's most characteristic sounds." (Peter Forrest: *"The A-Z to Analogue Synthesizers"*)

In any case, the MS-20 filters seem to be in vogue again. Korg uses the low pass filter in its new Monotribe. Of course, a filter and a VCO (Monotribe, for instance) don't make a full-fledged MS-20 (not even an MS-10), but I must admit: The Monotribe has a seductive, lively and very, very fresh sound. More about this later.



Sound and Performance

Never underrate the MS-20! (And don't even think that any modern MS-20 re-issue – even if it was released by Korg themselves – comes close the sound of the original.) Let's take a look at the MS-20 sound potential ...

First, its position as superb sound machine for **FX tones** is – in my personal opinion – unchallenged!

Second, **bass sounds** are not bad! Sadly VCO 2 ends at 16' while VCO 1 goes down to 32'. Well, you need to be a little creative: use the Frequency Modulation MG/T.EXT knob (and patch the wheel to the VCO's FREQU input) and transpose both oscillators one octave down. Then adjust each VCO at 16' – as soon as you play the keyboard, they both sound at 32'. Quite simple, I know. You even could go further and turn VCO1 to 32', while it sounds at 64'... but I guess that's where it starts acting as a low frequency oscillator.



GREATSYNTHESIZERS.com

Sure, IF there was a 4-octave keyboard, no one would argue about transposing problems - but there isn't. So, again, maybe you can make a case for the "poor man's ARP 2600".

Third, **lead sounds** profit from the wonderful filter constellation. Full of character the LowPass and separate HighPass (with extra resonance!). Together they act as a BandPass filter - not bad! The cutting sound character, combined with the short envelopes ("percussive release" is probably the nearest to it, even if, technically speaking, no such musical term exists) brings out tasty timbres similar to Yamahas early polyphonic CS-synthesizers CS-40M and CS-20M, respectively. Maybe the sound character differs, but the sound *behaviour* is in all three cases very much the same.

Last but not least: the patchable single wheel on the MS-20 is another strong point. Nice soli and inspiring melodies are not that difficult to produce with brilliant performance options, etc.



 GREATSYNTHESIZERS.com

Fourth, **subtle tones** are one of the unknown strengths of a Korg MS-20. Whether they belong to the FX-area or to the lead sound section... most musicians will be immediately convinced. Quite a few of the sensitive FX-sounds are very similar to the ARP 2600! It may take some time to get to the bottom of those sound creations, but in principle they are possible. As usual, there are three golden rules for producing one's own sounds:

- First, be patient. Discovering the ideal filter- and envelope-adjustments takes time.
- Second, use the *whole* instrument. No MS-20 is complete if you leave out its patchbay. You may occasionally end up in a confusing patch-orgy, but you're just as likely to come up with brand new, excellent modulation sounds.
- Third, less is more. Using all the oscillators, all filters, the internal LFO plus some external ones; modulating the instrument via wheel and analogue sequencers at the same time; investing all to do your very best is **no** guarantee for unique, interesting sounds full of character. Less is more. Start with one VCO. Use the dull sounding triangle wave. Run it through one filter and experiment with resonance effects and modulation possibilities, sensitive adjustment of attack time, etc. Give it a try! Sometimes surprising sound impressions are based on very simple constructions.



GREATSYNTHESIZERS.com

Legacy Collection, MS-2000, MS-20V, MS-20FS, K-2 and others

Just a few words about these instruments. Since a couple of years, the MS-20 is available as software synthesizer. Part of the Korg Legacy Collection, it came with a dedicated MS-20 USB controller - a small replica of the original MS-20 with a mini-keyboard and patchbay. (But even if it looks nice - after all it is nothing more than software, right?) Arturia followed and released its own software synth, the Korg MS-20V.



Korg MS-20 legacy / mini / original

The Korg MS-2000, however, is - you'd have to call in *vintage* nowadays - a 4-voice virtual analog hardware synthesizer based on the MS-10/20 and Monopoly. It came out in 2000 as a competitor to Clavia's NordLead and Roland's JP-8000.

Then, there is also the MS-20 Mini, MS-20 Kit and MS-20M Kit (rack version) and, since 2020, the MS-20 FS (full size), some of which are available in different colours. The instruments are equipped with MIDI and USB and allow you to switch between the two MKI and MKII filter versions*.



(c) Korg.com

GREATSYNTHESIZERS.com

[* A quick note about the two filter versions of the original MS-20. Rarely, but we did decide on the later MKII version. In our opinion, the filter resonance of the MS-20 MKI sounds ‘too’ extreme and can only be used musically to a limited extent. But that is, of course, a matter of taste; many MS-20 users want precisely that extreme filter sound and therefore prefer the MKI version.]

And yes, Behringer is certainly not shy about cloning to its heart’s content, offering the K-2, an MS-20 in rack format ... although that’s not entirely accurate. Behringer is simply offering another Behringer synth, and the casing may be reminiscent of the Korg MS-20. Nevertheless, the K-2 still offers creative possibilities, fits well into the Eurorack system and can be expanded into a polyphonic synthesiser via the chain function.



Behringer K-2

Analog and Semi-Modular Synthesizer with Dual VCOs, Ring Modulator, External Signal Processor, 16-Voice Poly Chain and Eurorack Format

(c) Behringer.com

GREATSYNTHESIZERS.com

Monotribe - small analog workstation with MS-filter

As generally known, Korg has turned again to *analog* synthesizers in recent years. Some of which are small. Very small. The **Monotron** from 2010, for instance, looks like the remote control of an electric garage door. Costing point: a dinner for one. Its “big” brother, the **Monotribe** followed in 2011. Korg is currently in business again with the MS-20 low pass filter - something that was actually designed 20 years ago.

Let’s face it, the sound of the Monotribe is not comparable to the MS-20 of those golden days. Nonetheless, the Monotribe has its very good points. Its concept (the combination of funky analog sounds with sequencer and drum loops) is inspiring and quite excellent. You might get addicted ...



Korg monotribe

GREATSYNTHESIZERS.com

Historically, the current trend is very interesting. If “workstation” were a term applicable to the monophonic synthesizer field, it would go a long way toward describing the marvellous MS-synthesizers (or say: MS-family) in 1978. However, the MS-20 was missing an on-board sequencer and/or arpeggiator, which is why Korg released the SQ-10. It was (and still is) a perfect match for the MS-20.

The circle has now been completed to that “idea” of an affordable workstation. In essence, such an analog package is back again in the new Monotribe. The package is even supplemented with a simple, on-board drum machine à la TR-808 (reduced to three sounds: bassdrum, snare, hi-hat). Another package is, of course, the new MS-20 mini and SQ-1 sequencer.

Reverb

Gebrauchtes und neues Musik-Equipment kaufen ...

SOLD See similar gear →



Korg MS-20 VINTAGE original 70s analog semi modular synthesizer fs eurorack ms20

Gebraucht - Gut

€ 1.350
+ €80 Versand

This gear has sold

See similar gear from other Reverb sellers

Ähnliches Equipment ansehen →

Watch for updates

Inseriert: vor einem Jahr Aufrufe: 266 Beobachter: 17 Angebote: 2

Oleg's Shop ★★★★★
Berlin, Deutschland

Unsere Benutzer bewerten Reverb
Hervorragend ★★★★★ ★ Trustpilot

Korg MS-20 auction 2024 (c) reverb.com

GREATSYNTHESIZERS.com

Reverb

Gebrauchtes und neues Musik-Equipment kaufen ...

Keyboards und Synthesizer > Synthesizer > Korg

SOLD See similar gear →



Korg MS-20 1970s - Black (Serviced / Warranty)

Gebraucht - Hervorragend

€ 1.550
+ €59 Versand

This gear has sold

See similar gear from other Reverb sellers

Ähnliches Equipment ansehen →

Watch for updates

Inseriert: vor 10 Monaten Aufrufe: 285 Beobachter: 14 Angebote: 1

TURNLAB.be ★★★★★
Antwerpen, Belgien

Unsere Benutzer bewerten Reverb
Hervorragend ★★★★★ ★ Trustpilot

Zu diesem Inserat

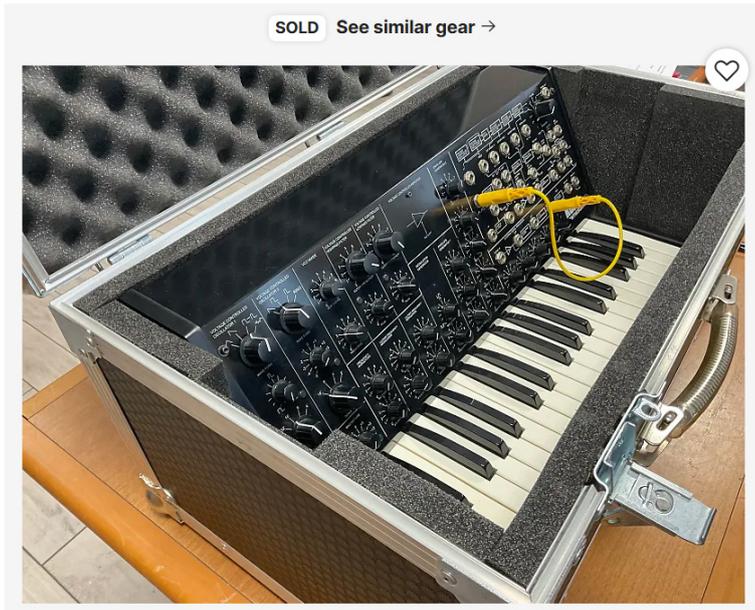
Sold serviced with warranty.

Korg MS-20 auction 2024 (c) reverb.com

GREATSYNTHESIZERS.com

Reverb

Gebrauchtes und neues Musik-Equipment kaufen ...



SOLD See similar gear →

Korg MS 20 synt. W/ Fly case

Gebraucht - Hervorragend

€ 1.321

+ €149 Versand

This gear has sold

See similar gear from other Reverb sellers

Ähnliches Equipment ansehen →

Watch for updates

Inseriert: vor einem Jahr Aufrufe: 212 Beobachter: 15 Angebote: 0

Edoardo's Gear Bazaar ★★★★★
Verderio, Italien

Unsere Benutzer bewerten Reverb

Hervorragend ★★★★★ ★Trustpilot



Zu diesem Inserat



Korg MS-20 auction 2024 (c) reverb.com

GREATSYNTHESIZERS.com

MS-20 today

In 1978, Korg's MS-20 was a hot potato. It has remained a very popular and unique music instrument up to this day. Many people fell in love with it due to a unique filter design, due to modular options, due to its unusual (maybe brilliant?) analogue sound character. Both professionals and home studios use this beauty nowadays. It's one of the most important synthesizers available regularly on the vintage market. Sure, it's gotten to be a bit expensive. 1,000 - 1,500 Euros/Dollars is far too much for a little old analogue synthesizer. Or is it?

After all, there are alternatives in that price region. For 1,000 - 1,500 Euros/Dollars you get a used [Doepfer A-100](#) modular system, for example. Or a comparable instrument from [Analogue Systems](#) (I really love the RS-200 sequencer, by the way), [Analogue Solutions](#) or any other eurorack manufacturer. Any of these modular systems has much more sound potential than the semi-modular MS-20 offered way back in 1978.



But certainly, it's up to you. Making the right decision is actually easy: look at the MS-20 features, listen to the **distinctive sound character** and those **powerful sounds**, imagine its versatile modulation routings, etc. Then sit down, have a cup of coffee (or some tea!) and decide whether or not this ingenious musical instrument is worth its currently high price. High compared to a Behringer clone, mind you ...

1. [Thick Bass](#)
2. [Mix 1](#)
3. [Mix 2](#)
4. [Mix 3](#)
5. [Mix 4](#)
6. [Solo 1](#)
7. [Solo 2](#)
8. [Filter Sweeps 1](#)
9. [Filter Sweeps 2](#)
10. [Filter Sweeps 3](#)
11. [Filter Resonance 1](#)
12. [Filter Resonance 2](#)
13. [FX 1](#)
14. [FX 2](#)
15. [FX 3](#)
16. [FX 4](#)
17. [4 Tracks FX](#)
18. [4 Tracks LO FI](#)

Korg MS-20

1978 - 1984

Monophonic Analog Synthesizer

2 VCOs, 2 VCFs, 2 ENVs, 1 LFO

LINK:

[Vintage Synth Explorer](#)

[Comparison Korg "Original" / "Legacy Controller" / "Mini"
Sound On Sound Report - Korg MS-20 Mini](#)