KORG MS-20

Owner's Manual Supplement

This supplement manual for the Korg MS-20 is for the synthesist using the External Signal Processor (ESP).

Patch the MS-20 as shown on Diagram I. This is the simplist patch when using the ESP. Since all musical instruments have different ranges in pitch, tone, dynamics and harmonic (overtone) content, the setting of the controls on the ESP will vary accordingly.

Setting the Controls on the ESP

Preliminary - If your instrument has its own controls for tone and volume, setting these is very important. For guitar, it has been found that these settings vary from one instrument to another. All give the best response with volume on "10", but some use the tone on "0", some on "10". Most use the front (rhythm) pickup, and some use both front and rear (rhythm and lead). Experiment with your instrument settings along with the following settings for the ESP.

1. Signal Level: Set this so that at your loudest signal, the peak light goes on. (On guitars where there is a strong attack and quick decay, the peak light should stay on about two seconds on the loudest and longest sustaining note - usually the low E.) For more sustain, set at a higher level.

2.& 3. Low and High Cut Frequency: These controls filter the incoming signal to get rid of unwanted noise and excess harmonics, which can falsely trigger the pitch to voltage converter. Start with the fully open setting. (low cut "0", high cut "10") If the high cut frequency is set too high, it lets unwanted harmonics through which can falsely trigger the MS-20. Set it so your lower notes trigger on the correct pitch and your upper notes still trigger the synthesizer. If the low cut frequency is set too high, the fundamental pitch will be cut out and again the synthesizer will falsely trigger. Set it so the lowest note triggers correctly. These controls must be set properly for the ESP to work accurately. Experiment with them to find the best setting for your instrument. (approximate settings for guitar; low cut 0, high cut 5-7).

4. CV Adjust: Set at 10 for unison pitch. By setting this control lower the control voltage will be correspondingly lower along with the final pitch of the MS-20.

5. Threshold Level: For longest sustain, set at "10". This control sets the length of the trigger. For certain effects, where you want to re-trigger often, it should be set at less than "10".

Once these are set, you should get a sound from the MS-20 corresponding to the settings on Diagram I.

All controls on the MS-20 work with the ESP except portamento. You can now refer to the owner's manual for help in using the controls, patching, and the different sounds you can achieve on the MS-20.

For expanded effects, the synthesist using the ESP module can use our optional MS01 Voltage Pedal, instead of the "wheel"; and our FP1 Footswitch, instead of the push-button.

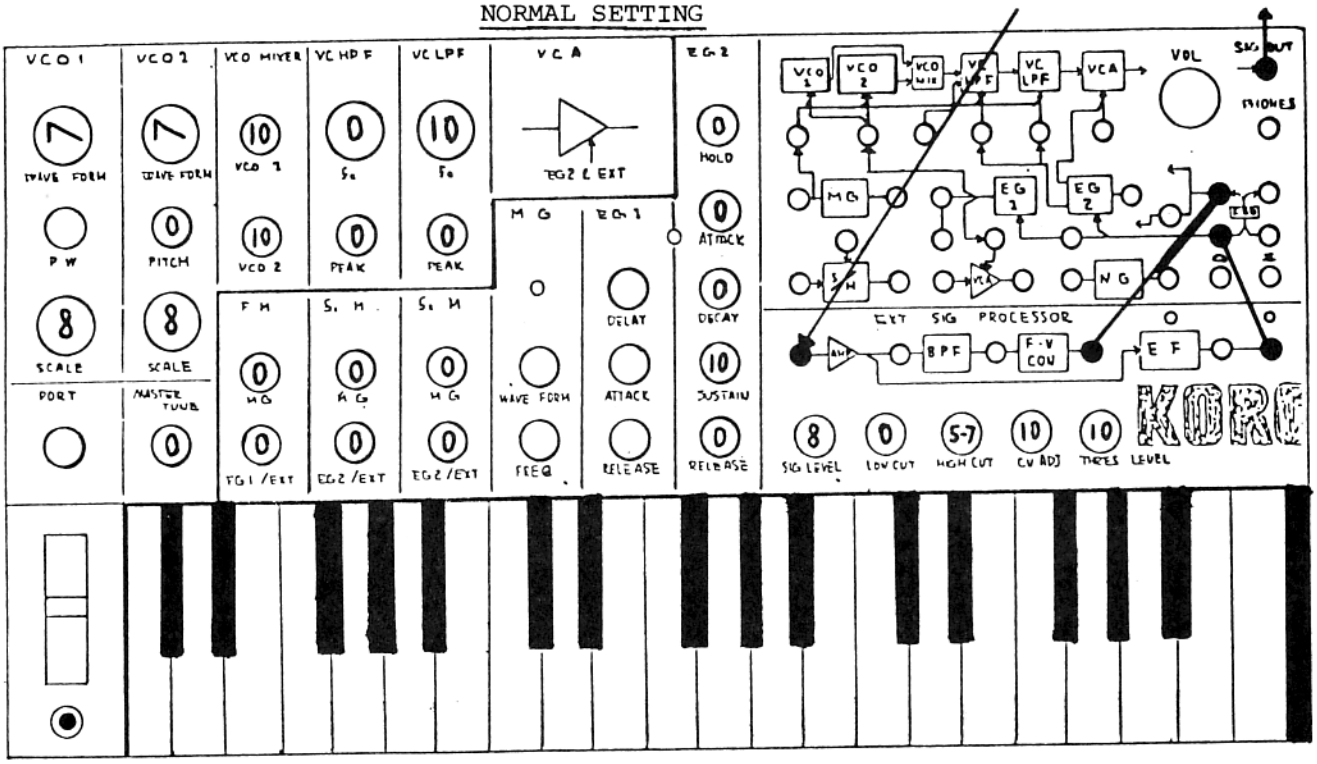
Here are some more patches to work with!

Experiment, Create and Enjoy!

This patch is the NORMAL SETTING for the MS 20 synthesizer and creates a basic unmodulated tone. This patch serves as a basis for further experimentation and creativity.

I

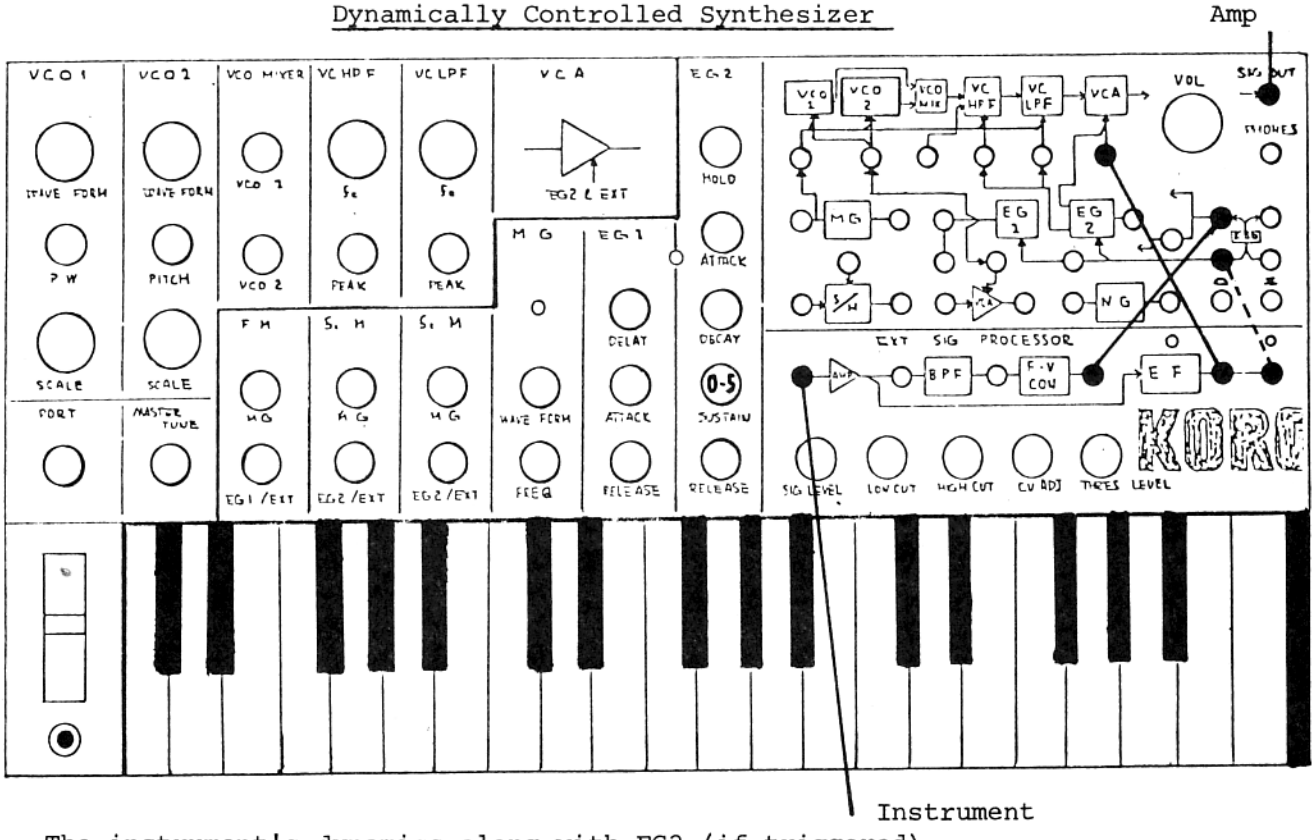
NORMAL SETTING



When using the below functional patches, we suggest you start with the NORMAL SETTING and then experiment with all the synthesizer settings to create your own synthesized sounds.

II

Dynamically Controlled Synthesizer

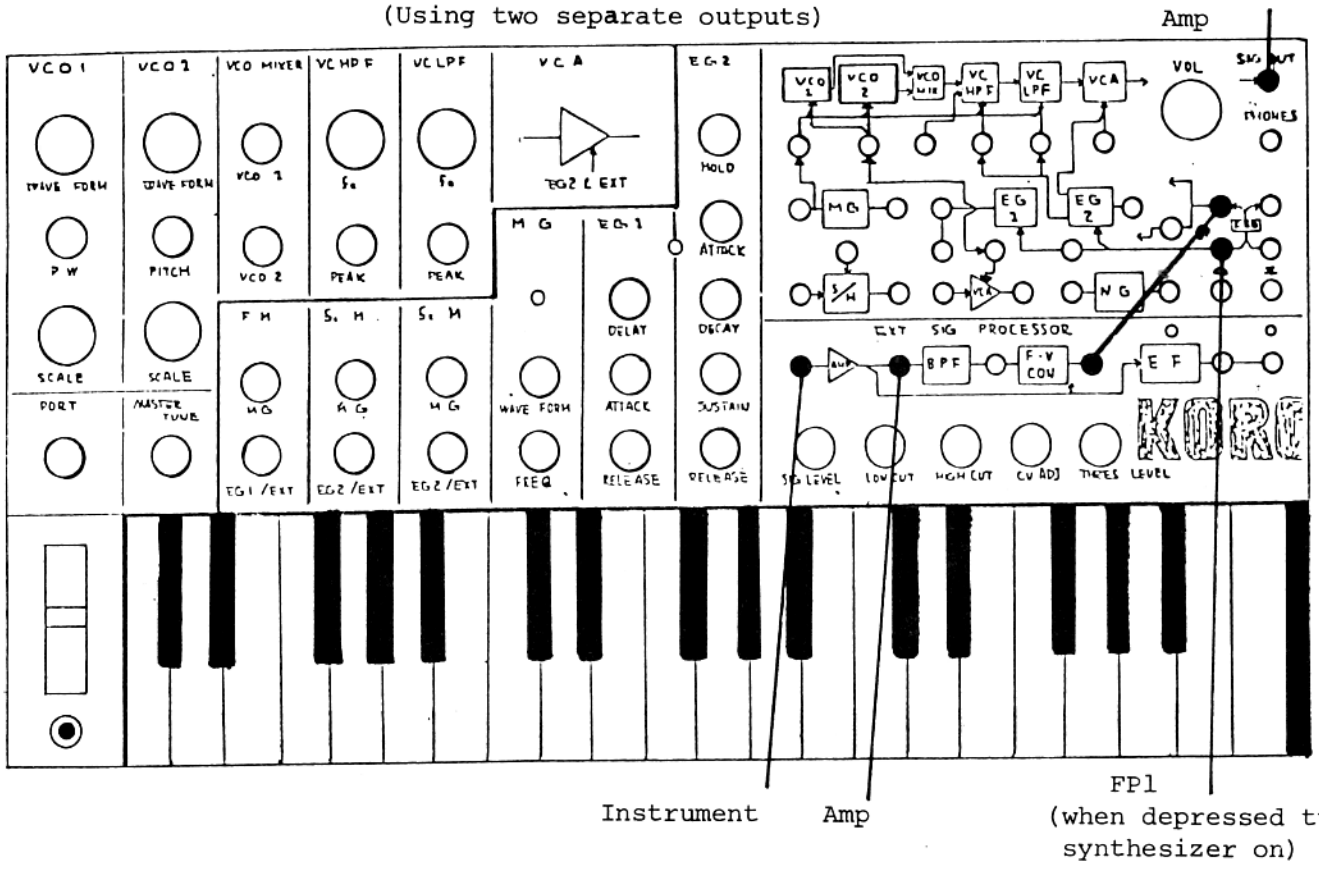


The instrument's dynamics along with EG2 (if triggered) control volume of the synthesizer.

Original and synthesized sound combination

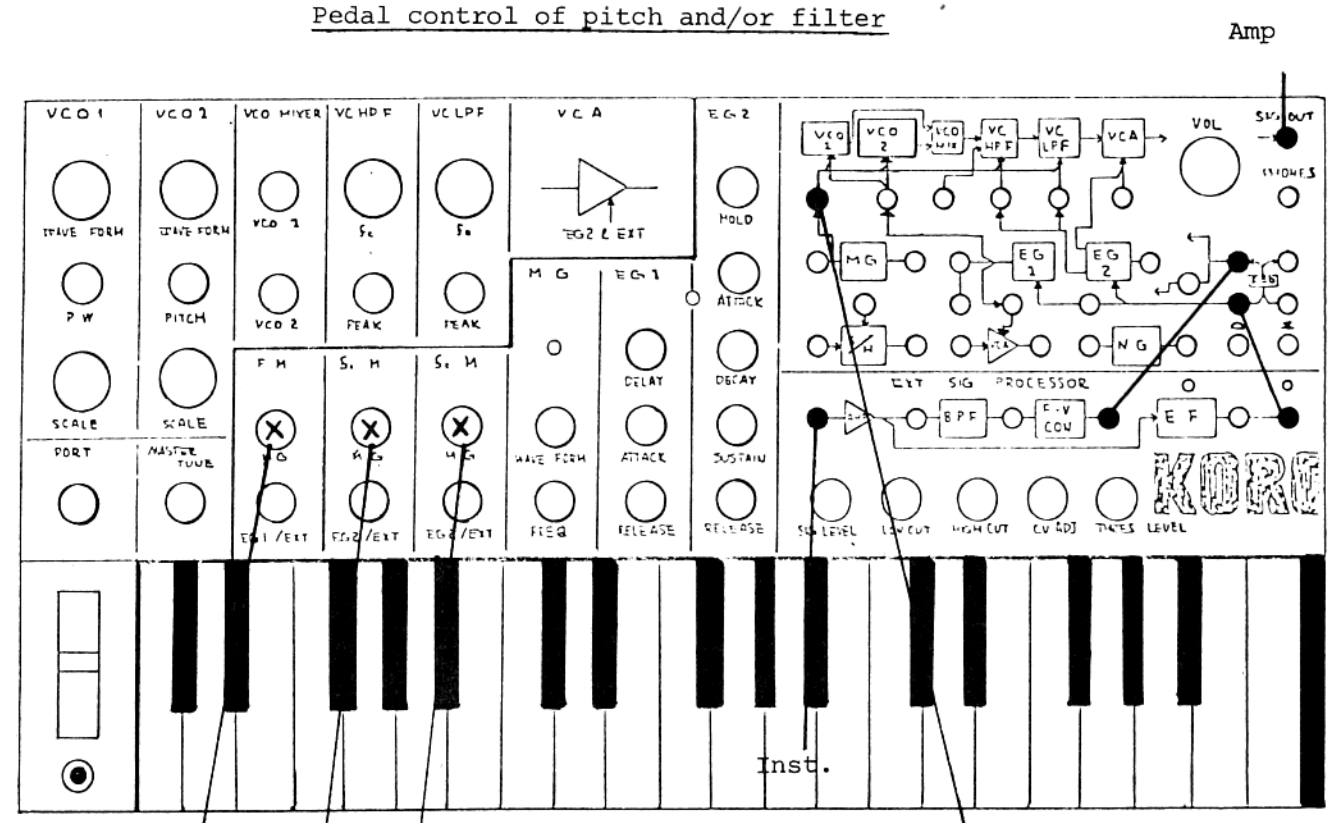
III

(Using two separate outputs)



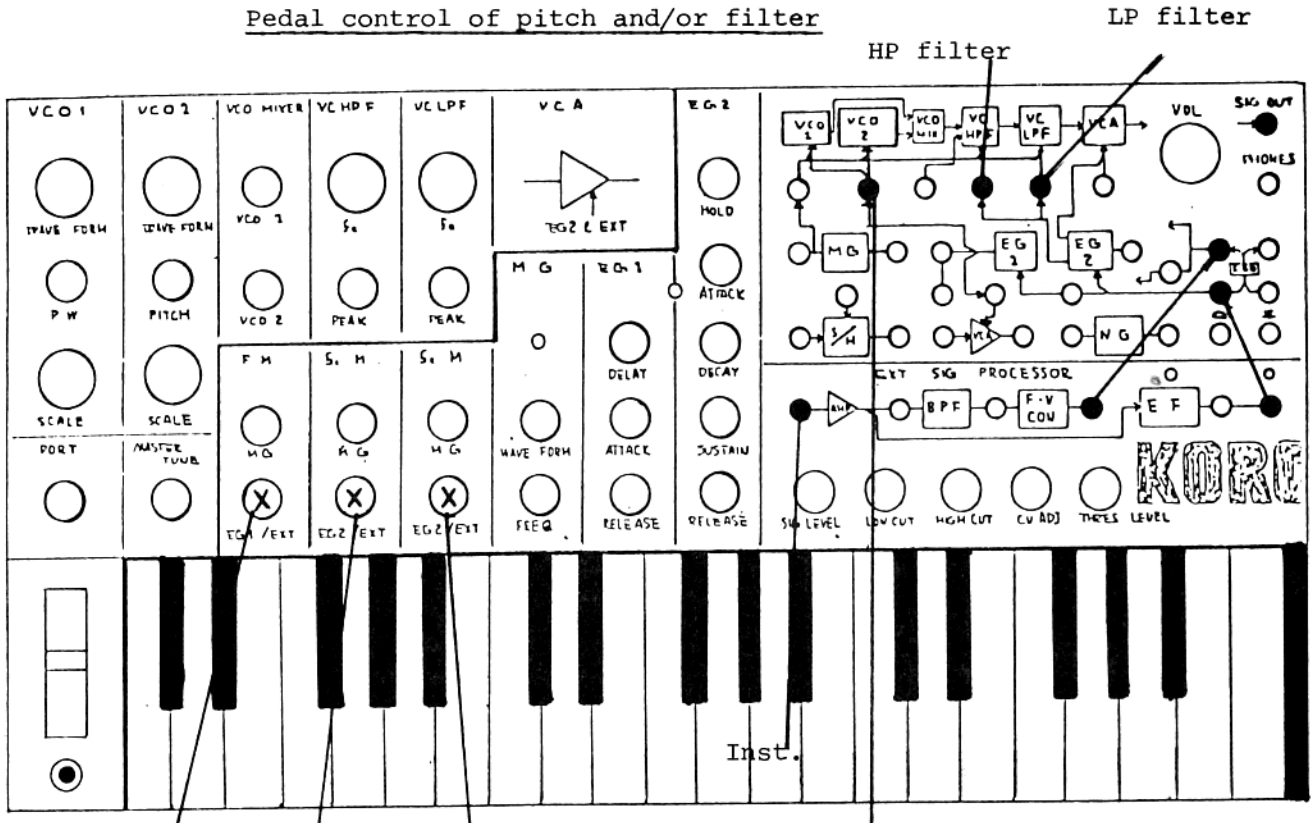
Pedal control of pitch and/or filter

IV



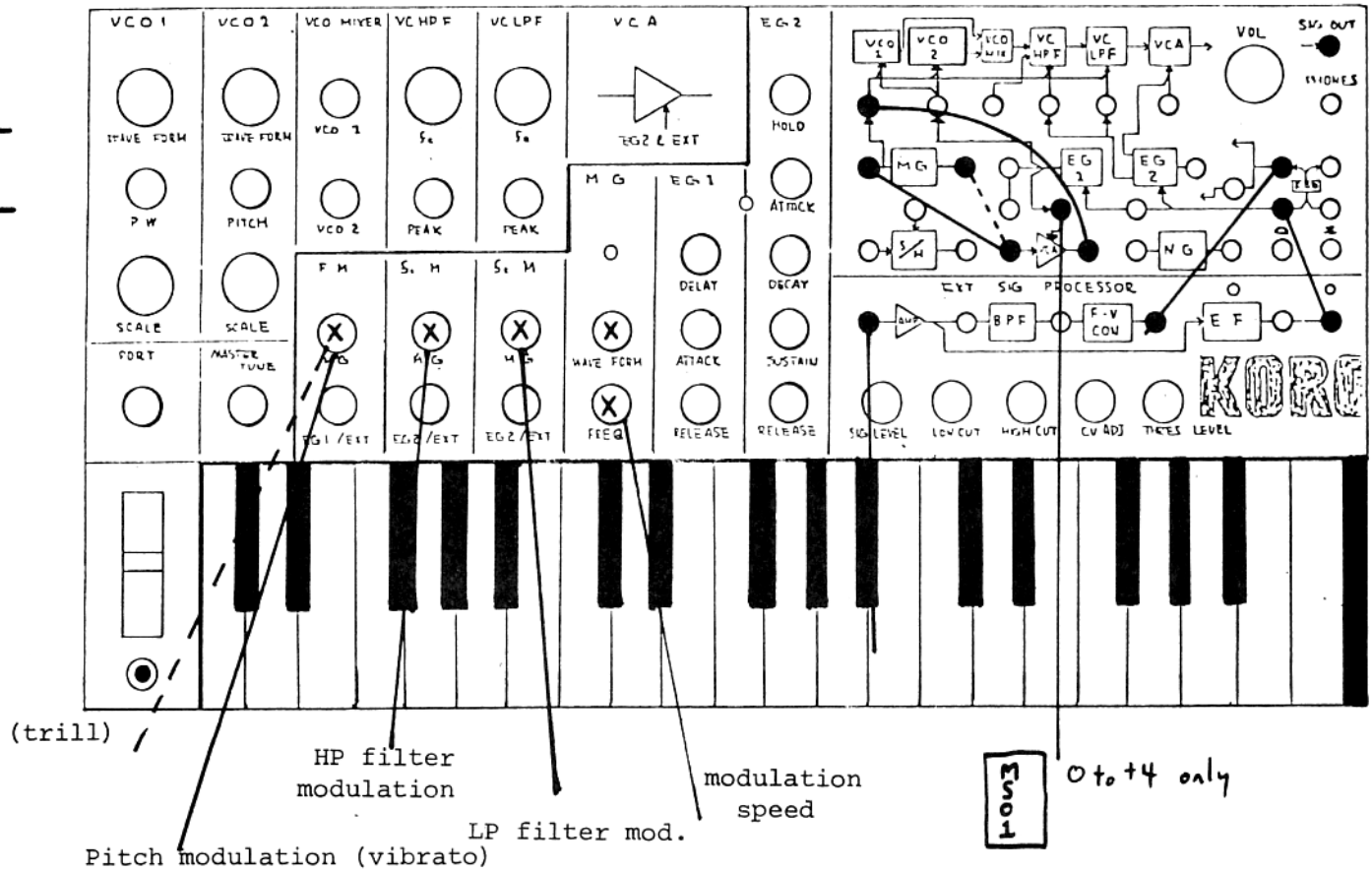
V

Pedal control of pitch and/or filter



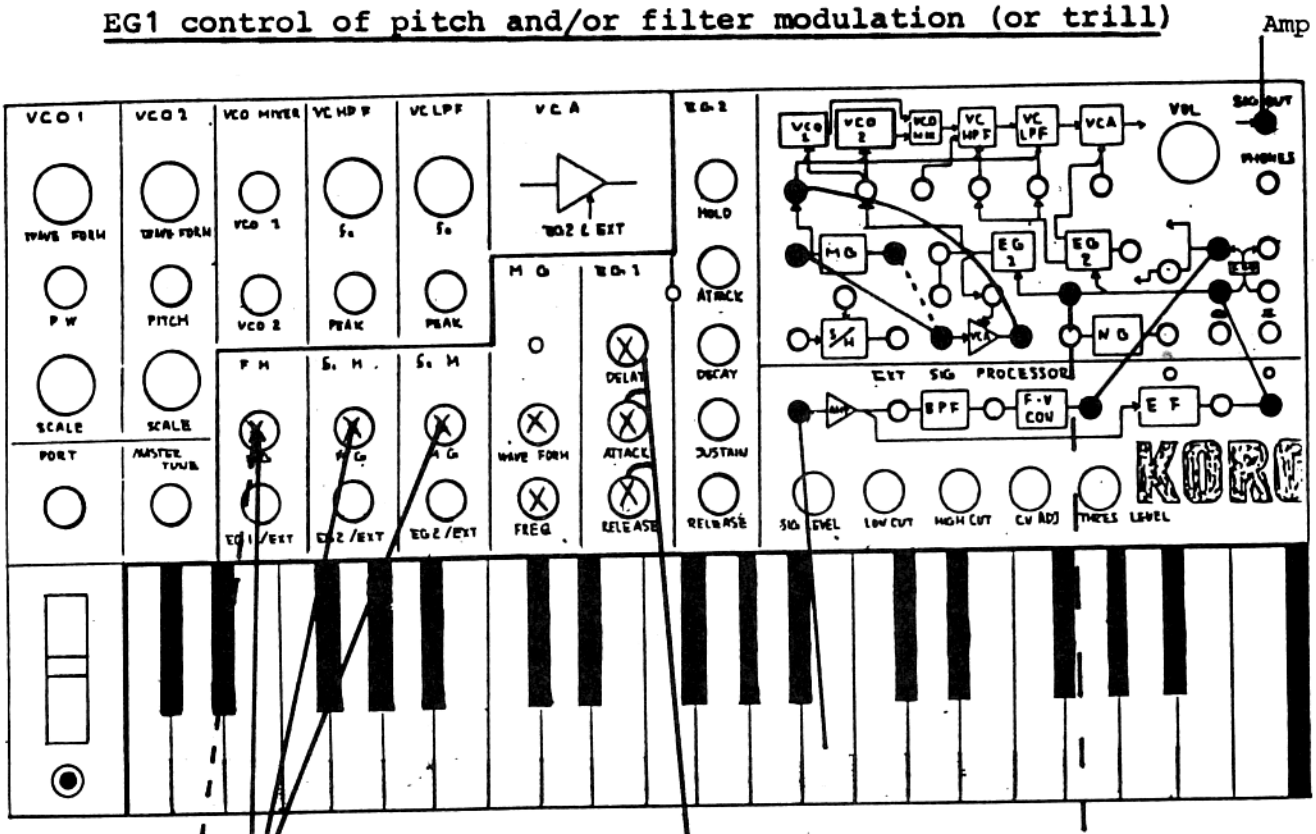
VI

Pedal control of pitch and/or filter modulation (or trill)



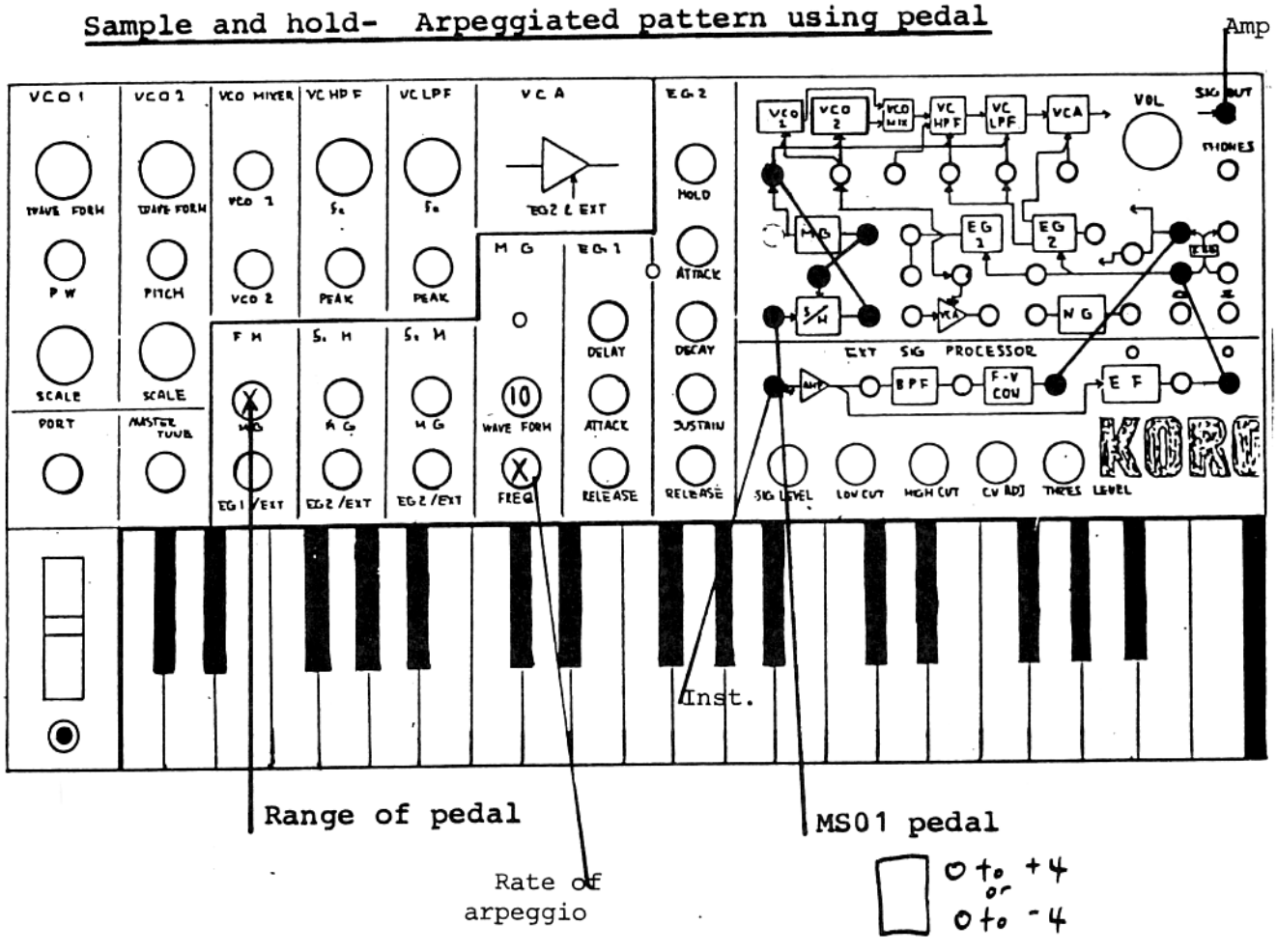
EG1 control of pitch and/or filter modulation (or trill)

VII



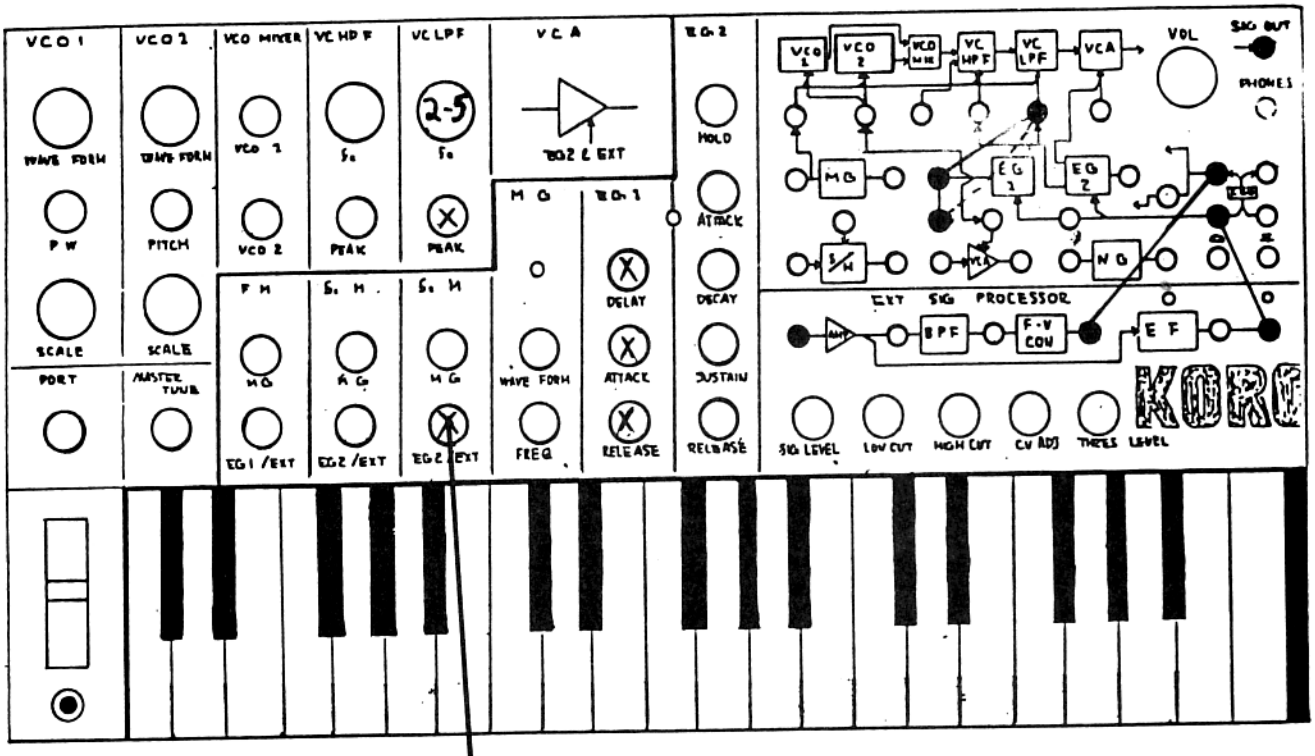
Sample and hold- Arpeggiated pattern using pedal

VIII



Using EG1 instead of EG2 to control LP filter

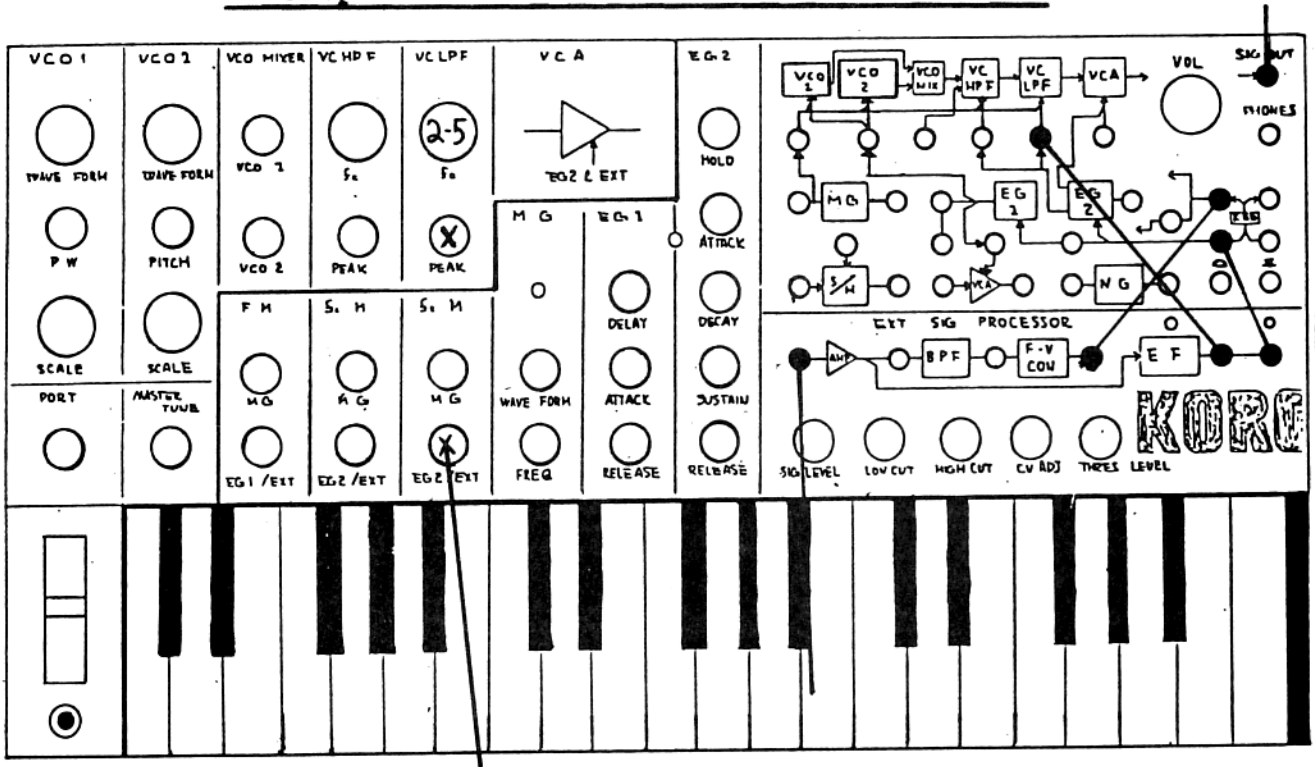
IX



Extent of filter change

Envelope follower of ESP controls LP filter

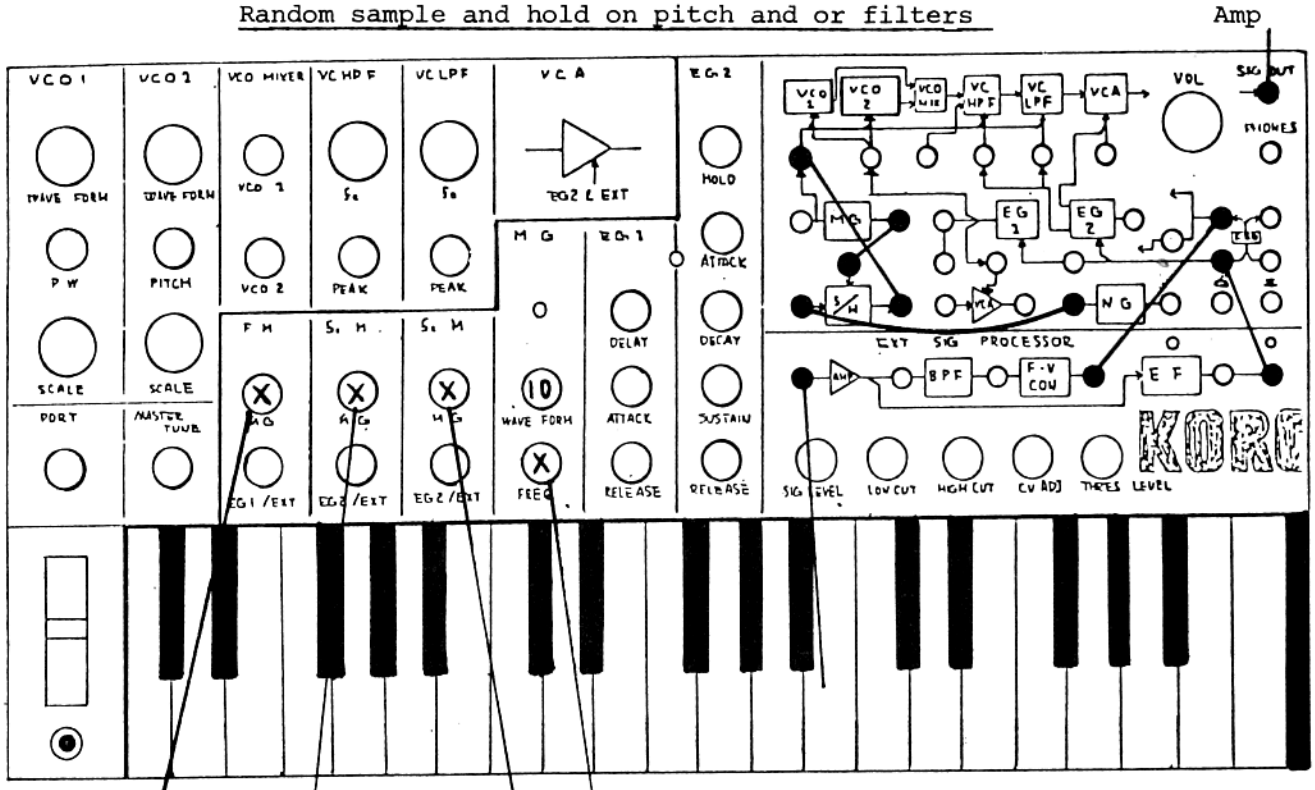
X



Extent of filter change

XI

Random sample and hold on pitch and or filters



Extent of S&H on pitch

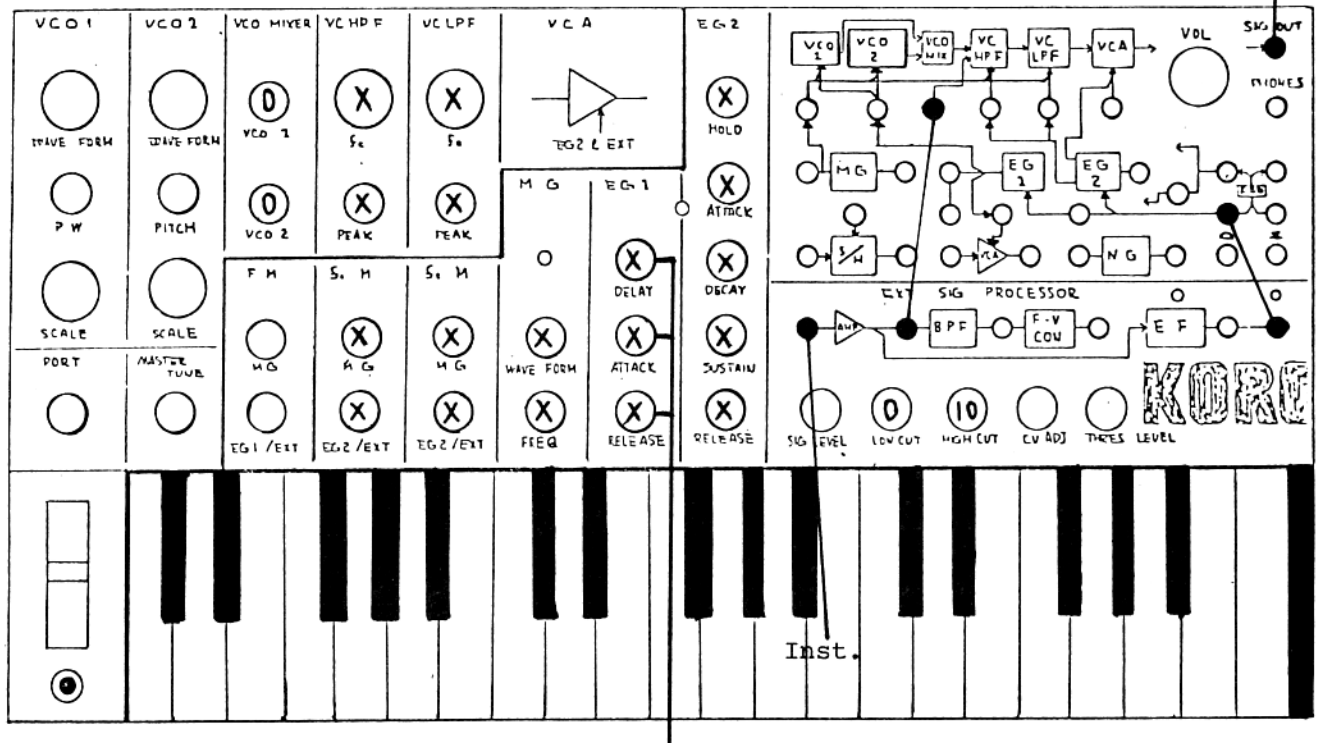
S&H on LP VCF

Speed of S&H

S&H on HP filter

Instrument through "triggered" filters (and VCA) (Envelope follower effect)

XII

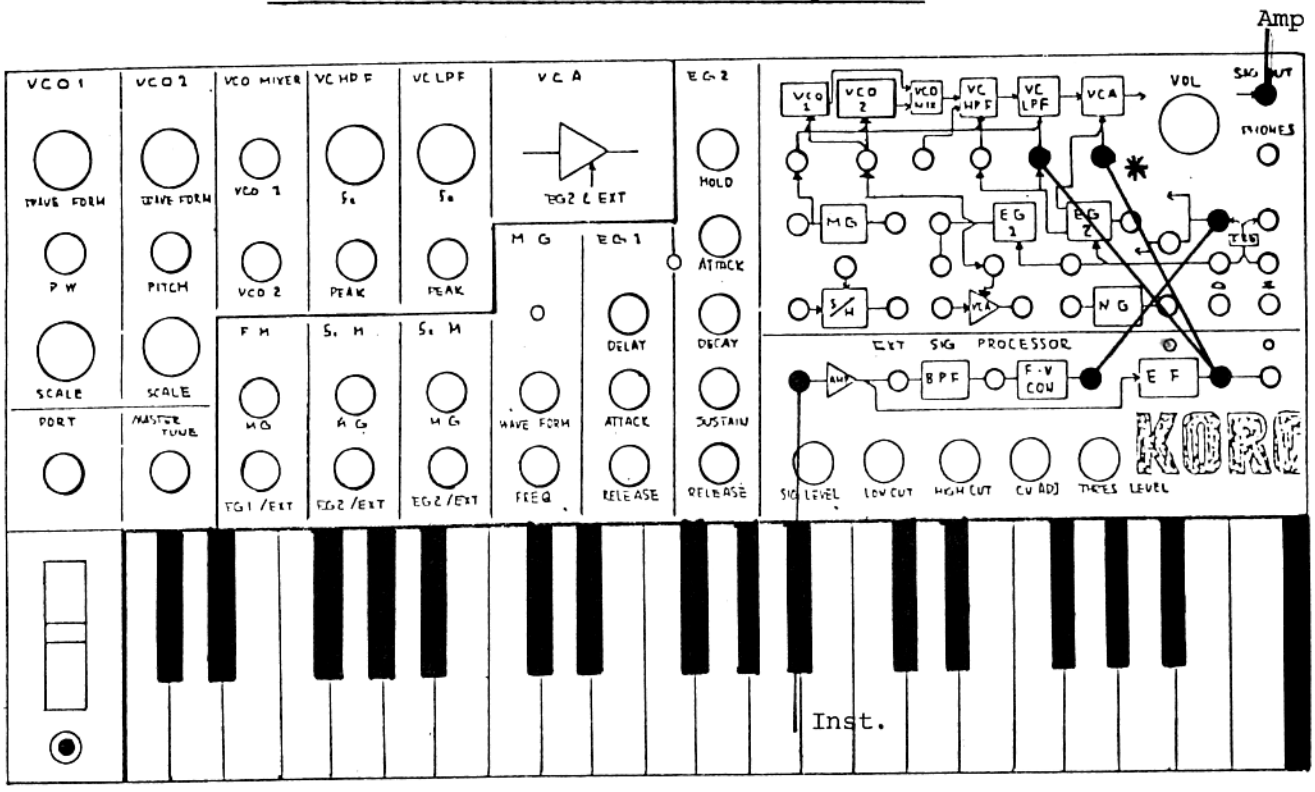


Inst.

Works only when patched.

Instrument control of timbre and dynamics

XIII



Recommended alternative for acoustic (wind) instruments.

* Use "Y" cord or junction box.