General

The DRUM-01 module revives the bass-drum and snare-drum sounds that were originally found in MFB's drum-machines MFB-301/302 and later in model MFB-501.
Both sounds can be sonically shaped with various parameters. The typical MFB-sound derives from analogue sounding digital C-MOS gates. These units works with less distortion compared to typical op-amps and therefore sound softer.
The DRUM-01 sounds, just like a lot of electronic devices made in the late seventies, pretty special and does only slightly resemble its acoustic counterparts. Instead the sounds offer a unique character as other beloved beat boxes like Roland CR78, Korg Minipops, Hammond Autovari etc… In combination with MFB's other DRUM modules and a step-sequencer these specific sounds can now be integrated into your modular system.

Set-Up

The DRUM-01 module is fully compatible to the Doepfer A-100 modular system - in size, bus-power and CV/Gate voltage. Connect the 10-pin cable to a corresponded 16-pin jack on the Doepfer mainframe bus. Supply voltage needs to be +/- 9-15 volts, 5 volt is not needed. The wattage is 40 mA, the module size 8 TE (Teileinheiten).

ATTENTION: Please, check for correct polarity! The colored side of the connector-cable needs to point downwards so that the cable is not twisted.

Connections

Inputs **BD In** und **SD In** accept common trigger signals. **BD Out** and **SD Out** output the drum sounds and are meant to be patched to a mixer or VCA. The separate output **Noise Out** is meant for additional sound sculpting, e.g. with a filter. Patch it to an individual VCA.

Trigger

Bass-drum and snare-drum will accept different trigger signals at **BD In** and **SD In**. These don't necessarily need to be analogue or digital trigger signals of a step-sequencer. You may as well use drum pads, piezo microphones or dynamic microphones. The two Sens controls will individually adjust the input sensitivity. Dynamic triggering will not only affect the volume of the sound but also attack and decay parameters.
You may intentionally set trigger sensitivity to a "wrong" value. By doing so, it is possible to use a strong signal's positive and negative slope as trigger inputs to create "doubles" while normally only the positive slope will trigger the sound.

Sound parameters

Bass Drum

BD Attack sets the volume of a short impulse that is added to the actual bass-drum sound to give it a percussive character.
The decay time for the bass-drum is controlled by **BD Decay**.

There is an additional trim-potentiometer on the circuit board to further increase the maximum decay time - up to self-oscillation if necessary. To access the potentiometer remove the module from the frame and use a miniature screwdriver to adjust the value on the back panel. The factory setting is set so that maximum length is just below self-oscillation.

Snare Drum

SD Tune defines the tuning for the tonal part of the snare sound.
SD Noise controls the volume of the noise part.
SD Decay will control the decay time for the noise part.

Noise

Noise Out carries the unfiltered signal of the digital noise generator. Combine this signal with other modules (filter, modulators, VCA) for additional sounds like hi-hats, claps, cymbals or for different purposes like using it with a vocoder.

Info: The DRUM-01 module uses the same digital noise generator as the classics MFB-301/302. The MFB-501 used a special noise transistor at that time.

Operating manual

Drum-01 Module