General

The DRUM-03 module revives the cymbal, closed- and open hihat sounds that were originally found in MFB's drum-machines MFB-301/302 and later on in model MFB-501. All sounds can be sonically shaped with various parameters. The typical MFB-sound derives from analogue sounding digital C-MOS gates. These units work with less distortion compared to typical op-amps and therefore sound softer.

The DRUM-03, just like a lot of electronic devices made in the late seventies, sounds 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-03 module is fully compatible to Doepfer's 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 **HH In, OH In** and **CY In** accept common trigger-signals. The outputs **HH Out** and **CY Out** are meant to be patched to a mixer or VCA.

Trigger

Hihat and cymbal will accept different trigger signals at **HH in, OH In** and **CY 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 slightly 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 would trigger the sound.

Sound parameters

HiHat

The sound source for the hihat is a digital noise generator that is send into a bandpass filter. The filter will control the hihat sound. **HH Quality** sets the filter bandwidth while **HH Filter** sets the filter's frequency. Since the filter is optimized for creating hihat sounds it can only be tuned within the upper frequency range. Also, because of the specific circuit layout, **HH Quality** works more moderate than drastic. **HH Quality** will be most noticeable with **HH Filter** set between 0 and 3 with a longer decay setting.

HH Decay mainly controls the duration of the open hihat sound. However, this parameter also affects the Closed Hihat's decay slightly.

Cymbal

The cymbal sound uses the same combination of digital noise generator and bandpass filer as the hihat section. Here, only the bandpass frequency can be altered with **CY Filter**.

CY Decay sets the decay time of the cymbal. The decay range is almost equal to the open hihat section. Accordingly, Cymbal can also be used as a second hihat sound. With a shorter decay time it may complement the groove as a half open or pedal hihat.

Info: The DRUM-03 module uses the same digital noise generator as the classics MFB-301/302. The MFB-501 used a special noise transistor at that time. The following sound shaping stage with filter and VCA were identical in models MFB-301/302 and MFB-501.

Operating manual

Drum-03 Module