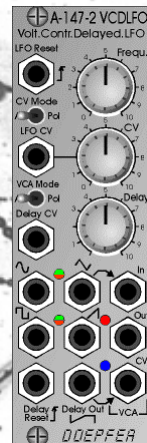
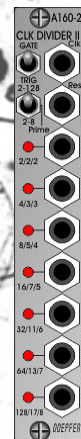
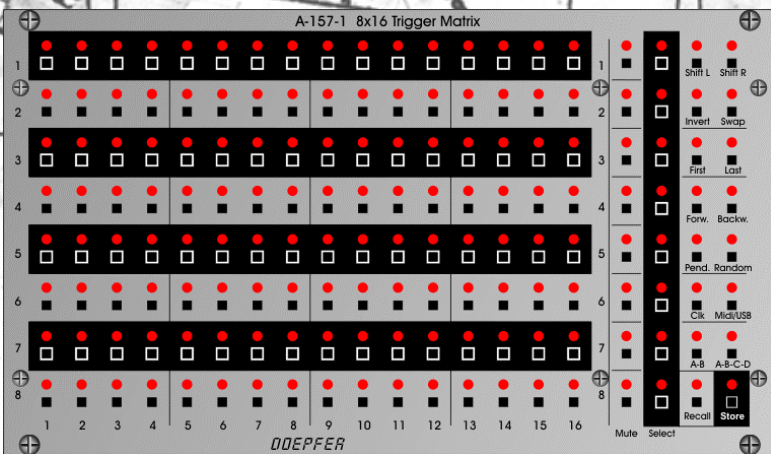
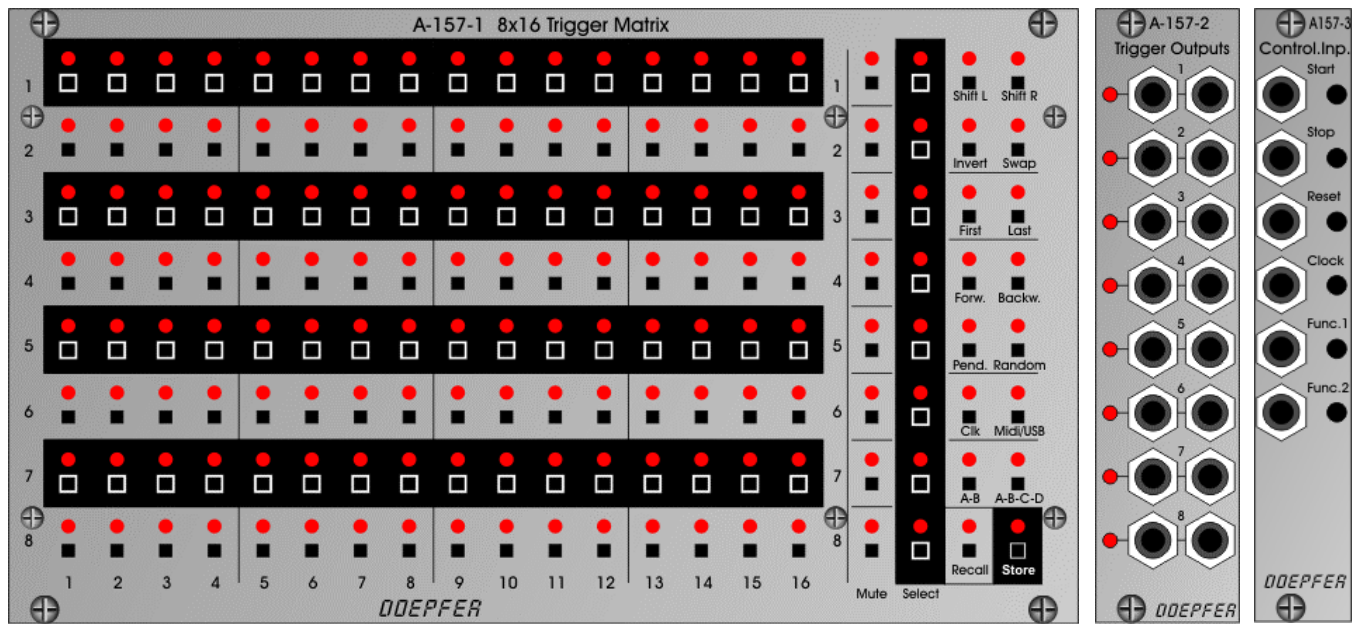


DOEPFER

NAMM Anaheim 2015 News

Fundamental Particles





A-157-X Trigger Sequencer Subsystem

At NAMM 2015 we'll show the final version of the A-157 trigger sequencer sub-system. The A-157 project has been started a few years ago and was improved and modified several times over the years. The idea behind the A-157 is to offer a modular version of the no longer available trigger sequencer Schaltwerk.

The A-157 sub-system consists of three modules:

- A-157-1: matrix module with 160 LEDs and momentary switches arranged as 8 rows with 16 steps each, and the control section at the right side (mute, select, shift, store, recall and so on)
- A-157-2: output module with 8 trigger outputs (2 sockets for each output) and 8 LED controls
- A-157-3: input module with manual controls and control inputs for Start, Stop, Reset, Clock and 2 definable Functions

The matrix module A-157-1 is the core of the system and used to set or reset each of the 8x16 steps by means of the momentary switch for each step similar to the well-known 808 operation - but with 8 rows visible at the same time. At the right side additional functions are available, like mute (turning a complete row on/off), select (selecting one or more rows for succeeding operations), function switches for selected row(s) like shift row left, shift row right, swap row, invert row, first/last step of the row, direction of the row (forward, backward, pendulum, random), pattern mode (A/AB/ABCD), store/recall of presets, clock source and so on.

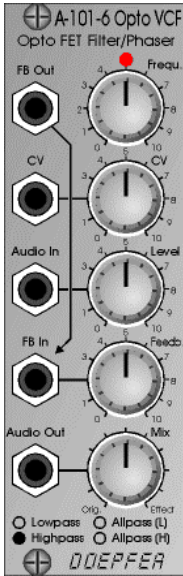
The output module is connected via a ribbon cable to the A-157-1 and can be placed right or left from the A-157-1 or even one row above/below if desired. Same is valid for the A-157-3 input module.

The input module A-157-3 is the interface to the clock/start/stop/reset signals of the A-100 system to synchronize the A-157 to other modules like an analog sequencer (A-155/A-154) or Midi/USB via a suitable interface.

Date of Delivery: spring 2015

Price: about US\$ 500.00 (Euro 400.00)

A-101-6 Opto FET VCF/Phaser



A-101-6 is a new filter module that uses so-called opto FETs to control the filter frequency. Opto FETs are very similar to Vactrols but use light depending field effect transistors (FETs) instead of light depending resistors (LDRs). The advantage compared to vactrols is the much faster response of opto FETs compared to LDRs. This allows much faster attack/decay times and even FM effects.

Module A-101-6 is made of six identical serial 6dB filter stages. Each stage can work as lowpass, highpass or one of two allpass types. The type of filter is selected by several jumpers on the pc board (factory setting: low pass). A breakout module for voltage controlled selection of the filter type is in the planning stage.

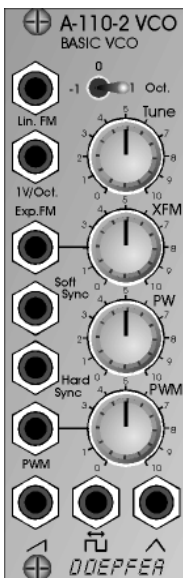
The resonance is controlled by the *Feedback* control up to self oscillation. An external feedback signal can be used instead of the internal feedback connection (*FB In* socket).

The Mix control is used to pan between the original signal (CCW position) and the effect signal (CW position). In filter mode (LP/HP) this control is usually set fully CW. In the allpass modes one obtains phasing sounds at center position or "pure" allpass sound in fully CW position.

Date of Delivery: February 2015 (just after NAMM)

Price: ~ US\$ 125.00 (Euro 100.00)

A-110-2 Basic VCO



Module A-110-2 is a low-cost voltage-controlled basic oscillator with these features:

- Sawtooth, Triangle and Rectangle Waveforms
- Adjustable Pulsewidth for the Rectangle output
- PWM input with attenuator
- Three-position octave switch
- Tune control with selectable range ½ octave or 4 octaves (internal jumper)
- CV input 1V/octave
- exponential CV input with attenuator
- linear FM input
- Soft Sync input
- Hard Sync input
- CV pick-up from A-100 bus via jumper
- only 8HP width

Date of Delivery: January 2015 (just after NAMM)

Price: ~ US\$ 150.00 (Euro 120.00)



A-110-4 QZVCO: Quadrature Thru Zero Voltage Controlled Oscillator

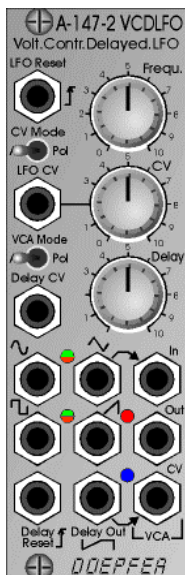
A-110-4 is a special audio VCO. The term "quadrature" means that the oscillator outputs sine and cosine waveforms simultaneously. The term "Thru-Zero" means that even "negative" frequencies are generated. But this a bit a misleading term as negative frequencies do not really exist. "Negative" means in this connection simply that the sine/cosine waves will stop when the linear control voltage reaches 0V and continue with the opposite direction as the linear control voltage becomes negative and vice versa.

The main advantage of the A-110-4 is that the design uses a sine/cosine core. The sine/cosine waves are not derived from other waveforms (e.g. sawtooth or triangle) by means of waveshaping. Rather the sine and cosine waves are the core of the VCO which results in very pure waves with a minimum of distortion and overtones.

- separate control sections for linear and exponential frequency control
- exponential control section:
 - Exponential manual control (Xtune)
 - Exponential CV input (1V/Oct)
 - Exponential CV input with attenuator (XFM)
- linear control section:
 - Linear manual control (LFrq)
 - Linear CV input with attenuator (LFM)
- LED display for positive/negative frequencies
- sine and cosine output

Date of Delivery: spring 2015

Price: ~ US\$ 150.00 (Euro 120.00)



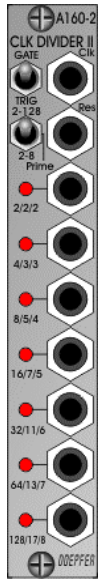
A-147-2 VCDLFO: Voltage Controlled LFO with Voltage Controlled Delay

A-147-2 is a voltage controlled LFO with a lot of special features. Essentially it's a VCLFO, a VCA and a unit that generates a voltage controlled delay CV to control the VCA:

- VCLFO with triangle, sine, sawtooth and rectangle waveforms
- Manual Frequency control
- Frequency CV input (LFO CV) with control
- Manual frequency range about 0.005Hz (i.e. ~ 3 minutes period) to 200Hz
- Optional super-low mode via jumper selectable (negative voltage normalled to the LFO CV socket): max. period up to one hour or more
- CV input mode switchable to attenuator or polarizer
- LFO Reset input
- linear VCA
- signal input of the VCA is normalled to the triangle output of the VCLFO
- CV input of the VCA is normalled to the CV output of the Delay unit
- Delay unit:
 - simple envelope with linear slope and attack only
 - manual Delay time (= Attack time)
 - CV input for Delay time
 - Delay Reset input (same as Gate for an envelope generator)
- Delay unit and VCA can be used also separately for other applications
 - the delay unit can be used e.g. as envelope generator for the LFO frequency or as an envelope generator for other applications
 - the VCA can be used e.g. for voltage controlled FM modulation depth of the LFO CV input or for waveshaping of the LFO waveforms by using of one of the waveforms as signal input and another waveform as control signal

Date of Delivery: February 2015 (just after NAMM)

Price: ~ US\$ 150.00 (Euro 120.00)

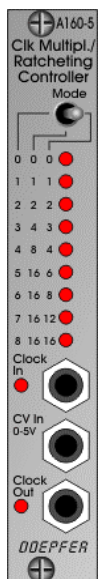


A-160-2 Clock/Trigger Divider II

Module A-160-2 is an enhanced version of the standard clock divider A-160. The module is a frequency divider for clock/trigger/gate signals, designed to be a source of lower frequencies, particularly for rhythmic uses. The Clock input will take any digital signal from, eg., an LFO, MIDI sync, or the gate from a MIDI-CV interface. At the outputs, one has access to three sets of seven different sub-divided clock signals, from half the clock frequency down to 1/128. The low/high levels of the output signals are 0V and about +10V. The A-160-2 also has a reset input. Whenever a reset signal is sensed, all outputs are set to certain levels which depend upon the selected mode.

- Three different sets of dividing factors, selected by a three-position switch at the front panel: power of two / prime numbers / integer
- Two output modes, selected by a two-position switch at the front panel: gate/trigger mode (in trigger mode the outputs are AND-wired with the clock signal, i.e. the clock pulsewidth affects the pulsewidth of the outputs)
- Clock edge type selected by a jumper on the pc board: positive/negative
- Reset behaviour by two jumpers on the pc board: level triggered/edge triggered and positive/negative
- Output polarity selected by a jumper on the pc board: positive (non-inverted outputs) / negative (all outputs are inverted)

Date of Delivery: ~ March 2015
Price: ~ US\$ 125.00 (Euro 100.00)



A-160-5 Voltage Controlled Clock Multiplier / Ratcheting Controller

- The incoming clock signal (socket *Clock In*) is multiplied by a factor that depends upon the control voltage on socket *CV In* (0...+5V) and the position of the *Mode* switch
- The multiplied clock signal is available at the socket *Clock Out*.
- According to the position of the Mode switch different clock multiplying factors are assigned to the control voltage. With 0V CV no clock output is generated. With increasing CV integer factors (left position of the mode switch), power of two factors (middle position) or a mix of both (right position) are obtained.
- Nine LEDs are used to show the currently selected multiplying factor
- Two LEDs are used to display the incoming and outgoing clock signal.
- The module can be used for all kind of clock multiplying applications.
- One important example is the generation of so-called **ratcheting sequences**. The band Tangerine Dream is famous for this kind of sequences. A normal sequencer generates only one gate signal per step. A ratcheting sequence may have also more than one gate pulses per step. This function can be obtained by using the A-160-5: one CV output of the sequencer is used to define the number of gate pulses per step. If the control of the step in question is fully CCW the generated CV is 0V and no gate signal is generated (mute of the step). When the control of the step in question is turned clockwise one, two or more gate pulses are generated depending upon the position of the mode switch and the voltage generated by the CV at this step. The corresponding patch is shown on the A-160-5 info page on our website

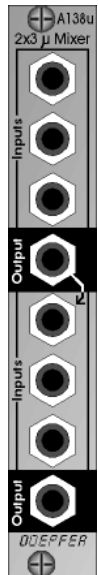
Date of Delivery: ~ March 2015
Price: ~ US\$ 125.00 (Euro 100.00)



A-139-2 Headphone Amplifier

- two-channel headphone amplifier
- two audio inputs with level controls
- Input 1 is normalled to Input 2
- common loudness/master level control
- headphone output (stereo 1/4" jack socket)
- max. output power ~ 2 W per channel (@ 8 Ohm load)
- DC coupled inputs and outputs (i.e. also useful for other applications like small loudspeakers, lamps, LEDs, magnets, motors - provided that the power is sufficient)

Date of Delivery: ~ March 2015
 Price: ~ US\$ 60.00 (Euro 50.00)



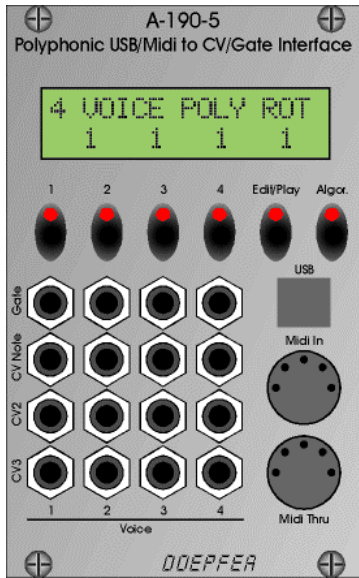
A-138u

- simple, low-cost mixer with two identical units
- each unit is equipped with three inputs and one output
- the upper unit has for each input a trimming potentiometer available that allows to adjust the amplification in the range 0...+1 for each input (factory setting is 1 for all inputs)
- the amplification of the inputs #1 and #2 of the lower unit are fixed to 1, input #3 has a trimming potentiometer available
- the output of the upper unit is normalled to the first input of the lower unit. That way the module can be used also as a mixer with five inputs
- inputs and outputs are DC-coupled, i.e. audio and control signals can be mixed.

Application examples:

- mixer for audio signals or control voltages when no level adjustment is required
- e.g. three VCOs preceding a VCF, when the amplifications are adjusted slightly different no signal extinction occurs during the beat of the VCOs

Date of Delivery: February 2015 (just after NAMM)
 Price: ~ US\$ 60.00 (Euro 45.00)



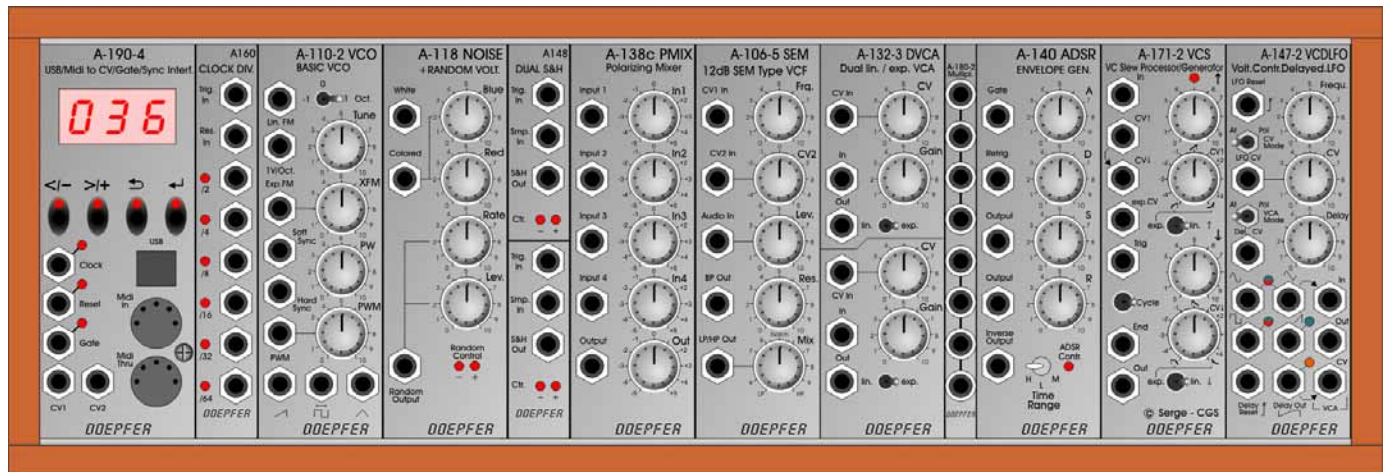
A-190-5 Polyphonic Midi/USB-to-CV/Gate Interface

- four voice Midi/USB to CV/Gate interface
- for each voice a pitch control voltage (CV1, 1V/octave standard to control VCOs), a gate output (to control envelope generators) and two additional control voltages (CV2, CV3) are available
- the two additional CV outputs can be controlled by Midi velocity, volume, modulation, pitch bend, after touch or free assignable Midi controllers.
- These assign/operation modes will be available:
 - four voice monophonic (i.e. to control four monophonic voices by four different Midi channels)
 - four voice polyphonic (i.e. to control four monophonic voices by one Midi channel) with different assignment algorithms (e.g. rotating / non-rotating)
 - two voice polyphonic (i.e. to control 2x2 monophonic voices by two Midi channels)
 - unisono (i.e. same CV on all outputs)
 - the operation is carried out by momentary switches with integrated LEDs and an LC display.
- In *Play* mode the LEDs of the first four switches display the gate states
- range of the CV outputs (CV1...CV3): 0...+10V (i.e. 10 octaves for CV1), the resolution is 12 bit

Date of Delivery: Spring 2015

Price: ~ US\$ 360.00 (Euro 300.00)

A-100 Starter System A-100BSS1



The modules of the starter system A-100BSS1 can be installed into an A-100LC3 or any other A-100 case. These modules are included:

- A-190-4 USB/Midi to CV/Gate/Sync interface
- A-160 Clock Divider
- A-110-2 Basic VCO
- A-118 Noise/Random
- A-148 S&H/T&H
- A-138c Polarizing mixer
- A-106-5 SEM VCF
- A-132-2 Dual lin/exp. VCA
- A-180-2 Multiples (2x4)
- A-140 ADSR
- A-171-2 VC Slew Limiter/Generator
- A-147-2 VCDLFO

Date of Delivery: February 2015

Price: ~ US\$ 1450.00 (Euro 1240.00) for version with A-100LC3 case

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