BLD, bass & drum sound module

The BLD has all components and function necessary for generating bass lead and drum sounds with focus on bass drum sounds. The BLD contain main sound generator (OSCILLATOR) and noise generator and modifiers such as low pass filter, amplifier and two transient (contour) generators.

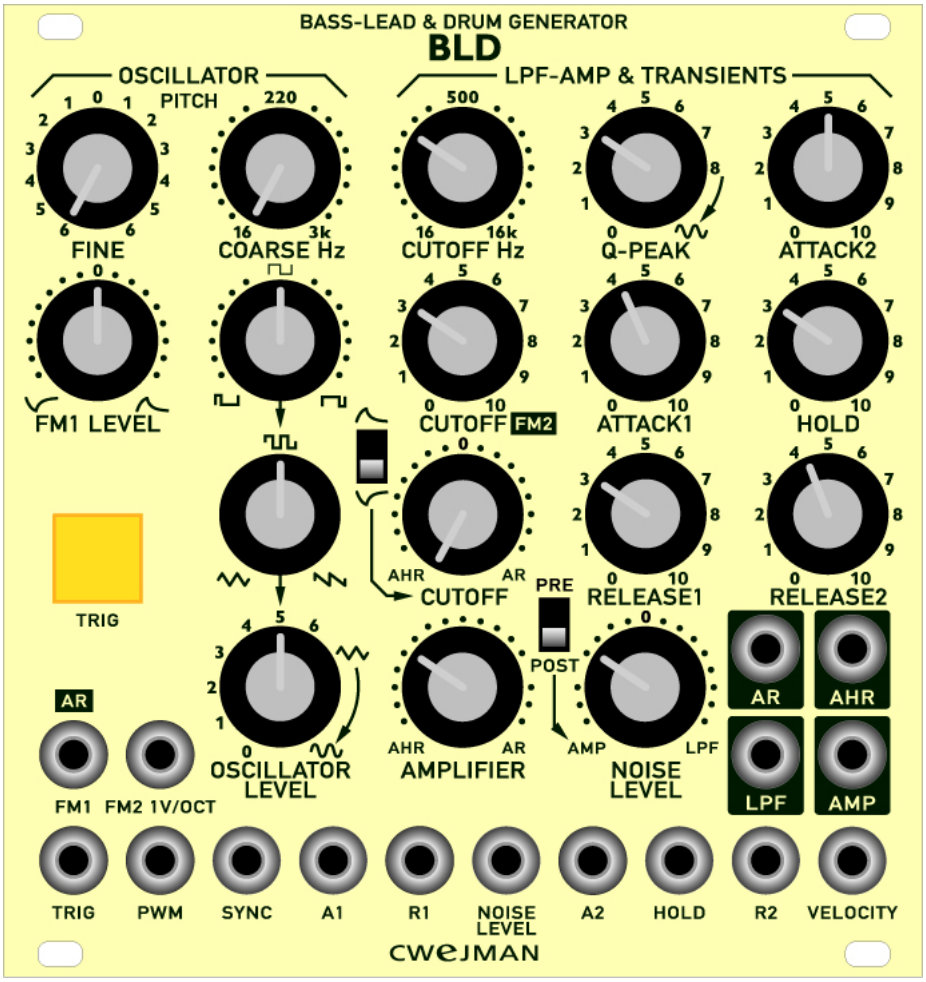
Oscillator has two manual pitch controllers (FINE, COARSE) and two inputs for controlling the pitch by external signals (FM1, levelled, bipolar pre-patched to transient generator AR and FM2, calibrated to 1 Volt/octave). Waveforms and mix between shapes is controlled manually from triangle, mix between triangle and pulse, pulse, mix between pulse and saw tooth and saw tooth). Oscillator level is controlled manually from 0 thru nominal signal strength to saturated (curved, for more punch). Pulse width is controlled manually and by an external signal (PWM).

LOW PASS FILTER has two audio inputs marked OSCILLATOR LEVEL and NOISE LEVEL, The CUTOFF frequency is controlled manually, transient generators AR and AHR and by CUTOFF pre-patched to FM2 CV input.

NOISE GENERATOR is connected to the low pass filter and to the amplifier (NOISE LEVEL). The noise generator can be routed in to the amplifier (PRE) or directly to the output AMP (POST). The noise generators level is also controlled by pre-patched AR generator thru input NOISE LEVEL.

AR and AHR transient generators are activated manually by the push button TRIG and/or by an external signal (input TRIG). Attack, Hold and Release are manually controlled and by an external signals connected to inputs A1, R1 (AR) and A1, HOLD and R2 (AHR).

AMPLIFIERs gain is controlled by mix of AR and AHR and by an external signal connected to the input VELOCITY.



OSCILLATOR

PITCH range	10Hz to 6kHz, manually
Waveforms	triangle, pulse, saw and mixed waveforms
PULSE WIDTH	5% to 95%
CV inputs	leveled FM1, FM2 PWM and SYNC
FM1	pre-patched to AR, bipolar
FM2	leveled (FM1 LEVEL) callibrated 1Volt/oct

LOW PASS FILTER

CUTOFF	16Hz to 16kHz
Q-PEAK	flat to self-oscillation
CUTOFF (FM1)	leveled from 0 to 1 Volt/octave
CUTOFF (AR-AHR)	leveled from 0 to 7 octaves, normal or inverted

OUTPUTS

AMP	main audio output
LPF	direct output from the filter
AR and AHR	transient generators

ENVELOPES

ATTACK1,2 time	0.5 msec to 2 seconds
HOLD time	0.5 msec to 2 seconds
RELEASE1,2 time	0.5 msec to 20 seconds
TRIG	2 Volts treshold, any waveform
Current	60mA
Dimensions	128.4mm (H), 121mm (B), 3 HE, 24TE